CITY OF MORETON BAY

Enquiries: Xavier Dubreuil
Direct 07 5433 2739
Our Ref: DA/2023/3497
Your Ref: 22-000082_23
Date: 24 October 2023

Foreverlen Pty Ltd
PO Box 5233
BRISBANE QLD 4001

Dear Applicant,

Re: DEVELOPMENT APPROVAL
Planning Act 2016

Development Application No.:	**DA/2023/3497**
Property Location:	**409-423 Caboolture River Road LILYWOOD** **403 Caboolture River Road UPPER CABOOLTURE**
Property Description:	**Lot 12 RP 866105** **Lot 1000 SP 337426**
Development Type:	**Operational Works - Development Permit for Roadworks and Stormwater and Earthworks (Lilywood Landings, Stage 23)**

Please be advised that on 24 October 2023 the above development application was approved by Council's Delegate as the Assessment Manager in accordance with section 63 of the *Planning Act 2016* subject to conditions.

The following type of approval has been issued:

- **Development Permit - Operational Works for Roadworks, Stormwater & Earthworks**

The development allowed by this approval must be carried out in accordance with the attached Decision package.

Attached is an extract from the *Planning Act 2016* which details your appeal rights and the appeal rights of any submitters, if applicable, regarding this decision.

Should you require any further information about this matter, please contact Xavier Dubreuil as referenced above.

Yours faithfully

X. Dubreuil

Xavier Dubreuil
Senior Engineer
Development Services

Enclosures: Attachment 1 - Decision Notice
Attachment 2 - Assessment Manager Conditions
Attachment 3 - Approved Plans / Documents
Attachment 4 - Appeal Rights
Attachment 5 - Infrastructure Charges

Cc Unitywater
Development.Services@Unitywater.com

ATTACHMENT 1

Decision Notice

Decision Notice

Planning Act 2016, section 63

APPLICATION DETAILS

Application No:	**DA/2023/3497**
Applicant:	**Foreverlen Pty Ltd**
Street Address:	**409-423 Caboolture River Road LILYWOOD** **403 Caboolture River Road UPPER CABOOLTURE**
Real Property Description:	**Lot 12 RP 866105** **Lot 1000 SP 337426**
Planning Scheme:	**Moreton Bay Regional Council Planning Scheme**

APPROVAL DETAILS

Date of Decision: **24 October 2023**

The development application was approved by Council's Delegate as the Assessment Manager subject to conditions (refer Attachment 2).

Application Type	Development Permit	Preliminary Approval
Operational Works for Roadworks, Stormwater and Earthworks	☑	☐

OTHER NECESSARY PERMITS

Not applicable.

In addition to this approval, you may also be required to obtain a water approval from the Northern SEQ Distributor Retailer, trading as Unitywater. To engage a Registered Certifier to lodge your connection application, go to Unitywater's website www.unitywater.com/certifier

CURRENCY PERIOD OF APPROVAL

The currency period stated in section 85 of the *Planning Act 2016* applies to this approval as outlined below:

- Operational Works - 2 years from the date of this approval starts to have effect.

DEEMED APPROVAL

Not applicable.

VARIATION APPROVAL

Not applicable.

INFRASTRUCTURE

Unless otherwise specified, all assessment manager conditions of this development approval relating to the provision of infrastructure are non-trunk infrastructure conditions under Chapter 4, section 145 of the *Planning Act 2016*.

ASSESSMENT MANAGER CONDITIONS

The Conditions relevant to this development approval are listed in Attachment 2 of the Decision package.

APPROVED PLANS / DOCUMENTS

The approved plans and/or documents as listed below for this development approval are included in Attachment 3 of the Decision package.

The approved plans/documents for this development approval are listed below.

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Title Sheet & Locality Plan	22-000082_23 Dwg. 1000 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Site Layout Plan	22-000082_23 Dwg. 1100 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wall Setout Plan Sheet 1 of 3	22-000082_23 Dwg. 1200 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wall Setout Plan Sheet 2 of 3	22-000082_23 Dwg. 1201 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wall Setout Plan Sheet 3 of 3	22-000082_23 Dwg. 1202 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wall Notes & Details	22-000082_23 Dwg. 1203 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wall Longitudinal Section	22-000082_23 Dwg. 1204 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Retaining Wal Setout Sections	22-000082_23 Dwg. 1205 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Control Line Setout Plan Sheet 1 of 2	**22-000082_23 Dwg. 1300 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Control Line Setout Plan Sheet 2 of 2	**22-000082_23 Dwg. 1301 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Control Line Setout Tables and Details	22-000082_23 Dwg. 1302 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Roadworks Layout Plan Sheet 1 of 3	**22-000082_23 Dwg. 1310 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Roadworks Layout Plan Sheet 2 of 3	22-000082_23 Dwg. 1311 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Roadworks Layout Plan Sheet 3 of 3	22-000082_23 Dwg. 1312 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Intersection Details	**22-000082_23 Dwg. 1320 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Signs and Linemarking Plan Sheet 1 of 3	22-000082_23 Dwg. 1330 Rev. B	Egis Consulting Pty Ltd	12/10/2023

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Signs and Linemarking Plan Sheet 2 of 3	22-000082_23 Dwg. 1331 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Signs and Linemarking Plan Sheet 3 of 3	22-000082_23 Dwg. 1332 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 3 Longitudinal Section	22-000082_23 Dwg. 1340 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 3 Cross Sections	22-000082_23 Dwg. 1341 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 4 Longitudinal and Cross Sections	22-000082_23 Dwg. 1342 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 16 Longitudinal and Cross Sections	22-000082_23 Dwg. 1343 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 17 Longitudinal and Cross Sections	22-000082_23 Dwg. 1344 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Road 18 Longitudinal and Cross Sections	**22-000082_23 Dwg. 1345 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Stormwater Layout Plan Sheet 1 of 4	22-000082_23 Dwg. 1400 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Layout Plan Sheet 2 of 4	22-000082_23 Dwg. 1401 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Layout Plan Sheet 3 of 4	22-000082_23 Dwg. 1402 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Layout Plan Sheet 4 of 4	22-000082_23 Dwg. 1403 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Drainage Notes and Details	22-000082_23 Dwg. 1404 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Catchment Plan Sheet 1 of 2	22-000082_23 Dwg. 1410 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Catchment Plan Sheet 2 of 2	22-000082_23 Dwg. 1411 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Longitudinal Sections Sheet 1 of 2	22-000082_23 Dwg. 1420 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Longitudinal Sections Sheet 2 of 2	22-000082_23 Dwg. 1421 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Calculation Table Sheet 1 of 2	22-000082_23 Dwg. 1430 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Calculation Table Sheet 2 of 2	22-000082_23 Dwg. 1431 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Stormwater Structures Details	22-000082_23 Dwg. 1440 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Bio-Basin G3 Layout Plan	**22-000082_23 Dwg. 1700 Rev. B**	Egis Consulting Pty Ltd	12/10/2023
Bio-Basin G3 Section Plan	22-000082_23 Dwg. 1701 Rev. B	Egis Consulting Pty Ltd	12/10/2023
Bio-Basin Notes and Details	22-000082_23 Dwg. 1702 Rev. B	Egis Consulting Pty Ltd	12/10/2023

Note: Approved plans as indicated in **BOLD** above are annotated in **red** on the stamped plans by Council dated 24/10/2023.

ASSESSMENT BENCHMARKS

The Assessment Benchmarks that applied to the development from the following Categorising Instruments include;

Categorising Instrument (*Planning Regulation 2017*)

State Planning Policy
- *State Planning Policy 2017*, Part E.

Regional Plan
- *South East Queensland Regional Plan 2017 (ShapingSEQ).*

Local Categorising Instrument (Moreton Bay Regional Planning Scheme)

- MBRC Planning Scheme - Works Code

Local Categorising Instrument (Variation Approval)

Not applicable.

Local Categorising Instrument (Temporary Local Planning Instrument)

Not applicable.

OTHER RELEVANT ASSESSMENT MATTERS

Not applicable.

REASONS FOR THE DECISION

Not Applicable.

REASONS FOR APPROVAL DESPITE NON-COMPLIANCE WITH ASSESSMENT BENCHMARKS

Not applicable.

REFERRAL AGENCY CONDITIONS

There were no Referral Agencies applicable to this development application.

SUBMISSIONS

Not applicable.

APPEAL RIGHTS

Attachment 4 of the Decision package is an extract from the *Planning Act 2016* which details your appeal rights, and the appeal rights of any submitters, if applicable, regarding this decision.

ATTACHMENT 2

Assessment Manager Conditions of Approval

CONDITION		TIMING
OPERATIONAL WORKS		
DEVELOPMENT ENGINEERING		
1	**Road Classifications for Pavement Design**	
	Design pavement in accordance with the following road classifications: Road 03 - Modified Living Residential (16.5m) - 1.2 x 10^5 ESA Road 04 - Modified Living Residential (16.5m) - 1.2 x 10^5 ESA Road 16 - Modified Living Residential (16.5m) - 1.2 x 10^5 ESA Road 17 - Modified Living Residential (16.5m) - 1.2 x 10^5 ESA Road 18 - Driveway (3.0m) 2.5 x 10^3 ESA	Prior to subgrade inspections.
2	**Non-Conforming Designs**	
	Only non-conforming designs listed in this approval have been accepted. All other discrepancies with Council standards shall be redesigned and / or reconstructed as necessary to conform with Council standards at no cost to Council.	At all times during construction and prior to works being accepted Off Maintenance.
3	**Errors and Omissions**	
	Where errors or omissions occur in the design or works do not conform to or meet Council standards then these works shall be rectified to comply with Council standards at no cost to Council. Where drawings contain insufficient detail or do not contain details of works that are either necessary or associated with the development then these works shall be designed and constructed to Council standards. Only the approved plans shall be used for construction. Note: Council reserves the right to amend the approved drawings or request further information should this become necessary.	At all times during construction and prior to works being accepted Off Maintenance.
4	**Works – Applicant's Expense**	
	All works, services, facilities and/or public utility alterations required by or as a consequence of this approval or stated condition/s, whether carried out by the Council or otherwise, shall be at the developer's expense unless otherwise specified or agreed in writing. Replace existing Council infrastructure (including but not limited to street trees and footpaths) to Council's standards.	At all times during construction and prior to works being accepted Off Maintenance.

CONDITION		TIMING
5	**Works – Connection to existing works**	
	Where existing works, including roads and drainage works, will not link up with and join smoothly to proposed works and are not more than twenty (20) metres from the nearest point of the proposed works the developer shall carry out such works as are necessary to ensure that the incomplete works, including roads and drainage, are constructed to link up with and join smoothly to the works proposed in accordance with Council's standards. These works are to be undertaken at the developer's expense unless otherwise specified or agreed in writing.	Prior to works being accepted On Maintenance.
6	**Notification of Finalisation of Works**	
	Notify Council in writing that the development works on site have been finalised.	At the time of completion of construction.
7	**As Constructed Drawings**	
A	Provide, for review and approval, Council with a preliminary set of the surveyor and engineering As Constructed drawings for the approved works and a digital ADAC file. Note: The current design standard and relevant planning scheme policy is MBRC Planning Scheme Policy Operational Works inspection, maintenance and bonding procedures.	Prior to requesting an On Maintenance inspection.
B	Submit 'As Constructed' drawings and digital ADAC file in accordance with Council's Planning Scheme, relevant Planning Scheme Policies and design standards current at the time of development.	Prior to works being accepted On Maintenance.
8	**Works Through Land not owned by the Developer**	
	Where any works are proposed to be undertaken on or extend into any property not owned by the developer then the other property owner's written consent must be lodged with Council. The written consent from the land owner must identify the correct drawing title and number (including revision number) for the works within or through their land.	Prior to any works commencing within those properties.
9	**Works in Existing Roads**	
A	Works carried out in or affecting existing Roads must be undertaken so that these roads are maintained in a safe and useable condition.	At all times.
B	Provide to Council's delegated officer and receive acknowledgement of a Traffic Management Plan, with site specific Guidance Scheme, prepared and signed by an appropriately qualified person and in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) for any works that will affect traffic movements or traffic safety in existing roads.	At least five (5) days prior to undertaking the works in or affecting existing roads.

CONDITION		TIMING
	Note: • A 'Part Road Closure Application' for Development Works form is to accompany the Traffic Management Plan submission. • This submission is required to be made in addition to any Traffic Management Plan which has been submitted and/or approved as part of a Construction Management Plan for the site during the development application process for Material Change of Use or Reconfiguring a Lot or subsequent non-IDAS applications.	
10	**Information Sign – Works in Existing Roads**	
	A construction advisory road sign must be erected and regularly updated and maintained displaying the developer and contractors details and the expected completion date for works on existing roads. The sign shall be located so as be clearly legible to the public from of minimum 15m distance from the existing road on which the works are to be carried out on.	For the duration of the works from commencement to acceptance of On Maintenance.
11	**Notification to Affected Premises**	
A	Provide Council with a copy of an information kit for 'Notification to Affected Premises' which includes the following: • A layout plan of the proposed development showing adjoining lot boundaries, new and existing roads, park and open space, drainage reserves and community purposes lots as applicable; • Details of any external works with any changes to existing works highlighted for easy identification; • Scheduled start and completion dates; • Contact names and phone numbers for the Developer, Supervising Engineer, Consulting Engineer, the Contractor, Wildlife Spotter and who to contact in an emergency; and • The site working hours authorised for the site works.	Prior to distribution of information kit to residents.
B	Provide all occupiers of premises adjoining the site, directly opposite the frontage of the site, adjacent to and directly opposite external works and residents/occupiers likely to be directly affected by the works with a copy of the 'Notification to Affected Premises' information kit. Provide Council's delegated officer with a list of premises which the information kit has been delivered to.	Not less than 14 days prior to commencing any construction works.
12	**Information Sign – Development Works**	
	An information sign containing the following details and after hours contact details must be provided at each entrance to the development site: • Developer	For the duration of the development works from commencement to acceptance On

CONDITION		TIMING
	• Supervising Consultant/ Engineers / Project Manager • Principal Contractor The sign must be at least 0.9m (W) by 0.6m (H). The sign must be erected and maintained for the duration of the development works.	Maintenance by Council.
13	**Prestart Meeting**	
	Arrange a prestart meeting with Council officers from Development Services section on 3205 0555 or (Email - council@moretonbay.qld.gov.au - Attention - Development Services - Engineering Waraba Construction Team - Referencing DA/2023/3497. The following people will be required to attend the prestart meeting: • Developer's Supervising Engineer • Contractor's Engineer / Project Manager • Contractor's Site Supervisor • Fauna Manager (where required).	Not less than 7 days prior to commencing any construction works.
14	**Mandatory Inspections with Council Officers**	
	Submit required documentation for each mandatory inspection in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to requesting inspection.
	Undertake the following inspections with Council's delegated officer (where applicable to approved works) in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures:	As prescribed below.
A	Stormwater drainage.	Prior to backfilling stormwater trenches.
B	Subgrade / box inspection.	Prior to placement of structural pavements.
C	Preseal inspection.	Prior to priming and sealing of structural pavements.
D	For concrete slabs and concrete pavements - foundations / subgrade and pre-pour inspections.	Prior to concrete pouring.
E	On maintenance inspection for Council's acceptance of all works.	Prior to works being accepted On Maintenance.
F	Off maintenance inspection of all works. Note: Reinspections attract a fee in accordance with Council's Fee Schedule. The fee must be paid prior to the reinspection.	After maintenance period has elapsed.

CONDITION		**TIMING**
G	Provide Council's delegated officer with a copy of an Engineers' Certificate Soil tester's reports demonstrating that required compaction standards, finished levels and textures of finish have been obtained in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to proceeding to construction of next layer or surfacing.
15	**Testing Frequency – General**	
A	All testing of the works shall be carried to comply with the minimum testing frequencies given in MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. Note: Council's delegated officer may vary the frequency of testing to suit site conditions but must provide written advice to the supervising engineer prior to commencement of the relevant works.	At all times during construction.
B	Provide a plan identifying locations where testing has occurred.	Prior to works being accepted On Maintenance.
16	**Construction Hours Restrictions**	
	Ensure hours of construction are limited to 0630 to 1830 Monday to Saturday and not at all on Sundays and public holidays. Note: Council's engineer may approve (in writing) work outside the above hours where it can be demonstrated to the satisfaction of Council that the work will not cause unreasonable interference with the amenity of adjoining premise and any person.	At all times.
17	**Construction Nuisance and Annoyance**	
	Ensure construction works do not cause unreasonable interference with the amenity of adjoining premise and any person by reason of noise, vibration, electrical interference, smell, fumes, vapour, steam, soot, ash, dust, silt, wastewater, waste products, grit, oil or otherwise.	At all times.
18	**Construction Site Management**	
	Ensure the construction site is kept in a clean and tidy state.	At all times.
19	**Temporary Sedimentation, Erosion and Runoff Control**	
A	Implement an Erosion and Sediment Control Plan which is prepared by an experienced Certified Professional in Erosion and Sediment Control (CPESC) in accordance with International Erosion Control Association Australasia (IECA) Best Practice and Sediment Control document and MBRC Planning Scheme current at the time of development.	Prior to commencement of works and to be maintained current at all times during construction and until the development is accepted off-maintenance.

CONDITION		TIMING
B	The temporary erosion and sediment control measures shall be maintained and be functional until the end of the Maintenance Period for the works or earlier if Council's delegated officer considers they are no longer required. Note: Council's delegated officer may order additional measures to control silt on site at no cost to Council.	At all times during construction.
20	**Haul Routes**	
	Submit and have approved by Council's delegated officer all haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard. Note: Refer to MBRC Planning Scheme Values and Constraints Mapping - Road Hierarchy for details on sub-arterial and arterial roads.	Prior to a prestart meeting being held.
21	**Spillage onto Existing Roads**	
	Clean those parts of the access route to the site that are affected by any material dropped, deposited or spilled on the roads as a result of construction processes associated with the site. Note: • All materials must be swept up and removed from the roads and not directed into Council's stormwater drainage system. • All care must be taken to prevent sediments being deposited on roads.	At all times during construction.
22	**Dust Control – Nuisance and Annoyance**	
	Implement suitable dust control measures. If airborne particles are observed leaving the site, any work is to cease immediately and satisfactory dust suppression is to be implemented. Note: Dust suppression measures must be in place at all times including weekends and public holidays.	At all times prior to works being accepted Off Maintenance.
23	**Earthworks Batters**	
	Where approved drawings do not include specifications for scour and erosion protection apply the following treatments to batter slopes: • Slopes of 1:6 or flatter – topsoil and seed • Slopes between 1:6 and 1:4 – topsoil and turf • Slopes of 1:4 or greater – provide treatment recommendation from a qualified geotechnical engineer (R.P.E.Q.) for Council approval prior to undertaking batter works • Or as directed by Council. Note: Batters within Open and Civic Spaces are to be treated	At all times during construction.

CONDITION		TIMING
	in accordance with MBRC Planning Scheme Policy Integrated Design - Open and Civil Space Design.	
24	**Road Crossings in Existing Roads**	
	All services crossings under Existing Council Roads are to be tunnel bored unless approved otherwise by Council's delegated officer. Where approval is given for open trenching, the following is to apply: • Minor Roads - backfill shall be compacted in layers to 95% standard maximum dry density and topped with 300mm of pavement material and a 50mm AC wearing course. • Sub-arterial or Arterial roads - refer to I.P.W.E.A. Standard Drawing RS-170. • Verge - Backfill shall be compacted to 90% standard maximum dry density and topped with 75mm of sandy loam. Restoration of any vegetation shall be undertaken to a standard as near as practicable to the pre-construction standard.	At all times during construction.
25	**Site works – Stormwater Runoff Quality**	
	Carry out earthworks in accordance with the State Planning Policy - Water Quality and IECA Best Practice Erosion and Sediment Control document. Note: • Soil disturbances of greater than 1.0 hectares will require a site specific Erosion & Sediment Control Plan. • Earthworks are to be undertaken to ensure that soil disturbances are staged into manageable areas of not greater than 3.5 hectares.	At all time during construction and until the site is suitably stabilised.
26	**Earth Retaining Structures**	
A	Earth retaining structures within the subject land around areas of cut that are on or near the boundaries of the site must be designed to allow for the existing live and dead loads associated with the adjoining land/premises current occupancy and use of the adjoining land including allowance for a 2m high boundary fence. The minimum design life (the period assumed in design for which a structure or structural element is required to perform its intended purpose without replacement or major structural repairs) for the earth retaining structure that is specified in Table 2.1 of Australian Standard AS4678.	At all times.
B	Submit for Council records copies of Forms 15 & 16 as detailed under section 254 of the Building Act 2006. The forms are to be signed by an RPEQ for all structural retaining walls.	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	Additionally, submit certification from an R.P.E.Q. that the design and construction of retaining walls comply with the requirements of this condition.	
27	**Unsuitable Fill Materials**	
	Ensure that all fill material used on the development site is free of unsuitable materials, identified in AS3798 and the following: • actual acid sulfate soils and potential acid sulfate soils; • organic or putrescible matter; • material imported from land which is, or has been, listed on the "Environmental Management Register" under the *Environmental Protection Act 1994*; and • building demolition material.	At all times.
28	**Compaction Requirements**	
	All fill material which is intended to be load bearing, or the finished surface level of which is required to remain approximately constant, is selected, placed and compacted to the standard prescribed in Australian Standard AS3798 Guidelines on Earthworks for Commercial and Residential developments.	At all times during construction.
29	**Pavement Design**	
A	All road pavements must be designed, constructed and tested in accordance with MBRC Planning Scheme Policy - Integrated Design - Street, Roads and Utilities and standard drawings current at the time of construction. Note: • Council requires a primer seal placed under all asphalt surfaces. • Increased asphalt surface thicknesses for road thresholds are to be identified in the pavement design.	At all times during construction.
B	Submit, for review and approval by Council's delegated officer, a pavement design for all roads. Pavement designs are to include Soil tester's reports.	Prior to subgrade inspection.
30	**Pavement Jointing Detail**	
	Undertake pavement jointing in accordance with I.P.W.E.A.Q. Standard Drawings RS-170.	Prior to works being accepted On Maintenance.
31	**Concrete Footpaths**	
	Construct concrete footpaths and kerb ramps in accordance with I.P.W.E.A. Standard Drawings RS-065 and RS-090.	Prior to works being accepted On Maintenance.
32	**Street Signs**	
	Street signs must be provided in accordance with Council's Standard Drawings and I.P.W.E.A. Standard Drawings.	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	Note: • House numbers required for these signs shall be obtained from Council's house numbering officer by contacting Council's Customer Service. • The MBRC Logo is not to be put on the sign.	
33	**Hazard Management**	
A	Undertake the hazard identification and treatment process for any additional, existing or introduced hazards identified onsite by the Consultant or by Council's delegated officer during the construction process. Undertake a review of the identified hazards and provide a copy of the completed Hazard Mitigation Worksheet found in AUSTROADS Guide to Road Design Part 6: Roadside Design, Safety and Barriers Appendix B along with any supporting information.	Prior to works being accepted On Maintenance.
B	Provide, for review and approval by Council's delegated officer, adequate design documentation for the recommended hazard management treatment in accordance with AS3845:1999 and AUSTROADS Guide to Road Design Part 6: Roadside Design, Safety and Barriers.	Prior to construction of any hazard management treatment.
C	Construct approved hazard management treatments in accordance with Council's Planning Scheme, Planning Scheme Policies, standard drawings and any other relevant standards current at the time of development.	Prior to works being accepted On Maintenance.
34	**Stormwater Runoff Control – Batters and Retaining Walls**	
	Provide cut-off drains at the top of the batter with turf or rock lined batter drains for all batters and/or retaining walls generally higher than 600mm in height and with a catchment greater than 1000m2. Note: Where these are not detailed on the approved drawings then these works shall be in accordance with Council's current standards.	Prior to works being accepted On Maintenance.
35	**Stormwater Runoff Control – Open Drains**	
	Provide lining with appropriate scour protection to all open drains and bunds in accordance with Council's Planning Scheme, Planning Scheme Policies and standard drawings current at the time of development. Note: Dumped rock is generally not considered as an appropriate solution.	Prior to works being accepted On Maintenance.
36	**Stormwater Pipe Outlets and Culvert Inlets and Outlets**	
	Stabilise all culvert inlets and outlets or stormwater drainage outlets in accordance with industry best practice and the following requirements: • Rock gabion baskets/rock mattresses	At all times.

CONDITION		TIMING

	• Grouted rock/stone pitching with a properly designed and prepared base and constructed to the following requirements:
	  ○ Mortar to be 1 part cement to 3 parts sand (by volume).
	  ○ Open face stone pitching is to be used where the concrete is recessed 50mm behind the stone facing.
	  ○ Select spalls to avoid sharp edges.
	• Other solutions as approved by Council's delegated officer.
	
	Note: Dumped rock is generally not considered as an appropriate solution.	

37	**Stormwater Overland Flow – Site Earthworks**	

	Earthworks must be undertaken on the site so as not to cause nuisance and annoyance to any person or premises. The development must:
	• Allow stormwater overland flow which entered the land prior to the commencement of the earthworks to continue to enter the land; and
	• Ensure stormwater overland flow from the development site is not discharged or diverted onto land (other than a road) adjacent to the site in a manner which:
	  ○ concentrates the rate of flow at any point along the property boundary; or
	  ○ increases the peak flow rates of stormwater discharged at any point along the property boundary; beyond that which existed prior to commencement of these earthworks.
		At all times during construction.

38	**CCTV – Stormwater Pipes**	
A	Undertake and provide, to the satisfaction of the Council, a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes, including inter allotment roof water drainage. Recording to be undertaken within one month immediately preceding making a request for On Maintenance inspection and post road pavement construction works. CCTV to clearly display all joints (full surrounds) and any form of damage or defects, including date and time of the recording. The recording is to include a report signed by a suitably qualified Registered Professional Engineer Queensland (RPEQ) stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide method of rectification to Council for approval, prior to carrying out any rectification works.	Prior to a request for On Maintenance Inspection

CONDITION		TIMING
B	Undertake and provide, to the satisfaction of the Council, a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes, including inter allotment roof water drainage. Recording to be undertaken within one month immediately preceding making a request for Off Maintenance inspection. CCTV to clearly display all joints (full surrounds) and any form of damage or defects, including date and time of the recording. The recording is to include a report signed by a suitably qualified Registered Professional Engineer Queensland (RPEQ) stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide method of rectification to Council for approval, prior to carrying out any rectification works.	Prior to a request for Off Maintenance inspection.
39	**Drainage Behind Retaining Walls**	
	Design and install agricultural pipes or strip drains behind retaining walls in accordance with Q.U.D.M. to connect to: • The proposed inter-allotment drainage systems; or • To drainage inlet structures via a stub connection in roadways; or • Directly to kerb and channel if there are no drainage structures within 10m of the frontage of the land; or • As approved in writing by Council's delegated officer. Notes: • Corrugated pipes are not to be used to connect the stormwater drainage to Council's infrastructure. • The drainage system behind retaining walls must not connect to Council's subsurface drainage system in the Council road.	Prior to works being accepted On Maintenance.
40	**Provision of Kerb Adapters**	
	Provide a minimum of two (2) metal kerb adaptors per lot for lots that drain to the road. Where a lot has side crossfall of up to 1.5%, one (1) kerb adaptor shall be located at each side of the lot. Where a lot has side crossfall of greater than 1.5%, both kerb adaptors shall be located at the low side of the lot. For lots with a concrete footpath at the frontage, the kerb adaptors shall be connected to the front boundary of the lot with Class SN8 uPVC stormwater pipe.	Prior to works being accepted On Maintenance.
41	**Certification – Public Stormwater Management Infrastructure**	
	Provide documentation to Council from a Registered Professional Engineer (RPEQ) specialising in stormwater design certifying that the stormwater management treatment train as approved in the stormwater management plan and design drawings has been constructed in accordance with engineering best practise and is functioning as designed.	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	The certification shall include the completed sign-off forms for bioretention systems prepared by Water by Design in Partnership with Healthy Waterways shall be completed. The sign-off forms are accessible from www.waterbydesign.com.au.	
42	**Public Bioretention Inspections**	
	Provide Council with notice of the subsoil drains being laid and the filter media being installed. Note: Council's delegated officer may attend the inspection.	Not less than 48 hours prior to subsoil drains being laid and the filter media being installed.
43	**Maintenance Process for Public Bioretention Basin**	
A	The entire bioretention basin shall act as a sediment basin. Note: Council will consider alternative solutions to achieve the desired outcome.	During the build-out phase (80%) or up to a maximum of two (2) years.
B	Submit, for review and approval by Council's delegated officer, a deferred works schedule to cover the cost of basin conversion plus twenty-five percent (25%) and in accordance with the requirements of Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. The following works are to be included as a minimum in the deferred works bond schedule: • removal of sacrificial turf and geofabric; and • In-situ hydraulic conductivity testing of filter material in accordance with the "Guidelines for Soil Filter Media in Bioretention Systems: (produced by the Faculty for Advanced Water Biofiltration) requirements. • Planting out of the basin in accordance with the approved landscaping drawings.	Prior to the bioretention basin area being accepted On Maintenance as a sediment basin.
C	Construct deferred works and any other works necessary to convert to the basin from sediment basin to a functioning bioretention basin in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. In-situ hydraulic conductivity testing of filter material is to be provided to Council's delegated officer to demonstrate that area can be planted out. Where in-situ hydraulic conductivity testing shows that the filter material is not acceptable then replacement of the filter material is required in addition to planting out of basin area. Note: Deferred Works for bioretention basin conversion are subject to a separate on maintenance process to the other civil works for the development. The On Maintenance process is to be in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance	Once the contributing catchment achieves eighty percent (80%) build-out or a maximum of 2 years.

CONDITION		TIMING
	and bonding procedures including on and off maintenance inspections and maintenance period.	
44	**Fertilisers for Grassing and Landscape Works**	
	Odorous chemicals, fertilisers, soil conditioners or mulches shall not be used on land development projects. Only a non-odorous, commercially bagged and labelled fertiliser shall be used when seeding grass areas or laying turf. Without limiting the above, Council's delegated officer may approve the use of suitably composed and aged organic material, such as soil conditioners, at the following locations: • in isolated locations where existing and proposed houses are considerable distances from the work site; and • where, in the officer's opinion, their use would not adversely affect the occupiers of any nearby properties with strong odours or loose material blown from the work site. Council's delegated officer will provide the approval in writing with conditions where odorous fertilisers are approved.	At all times during construction.
45	**Stabilisation of Disturbed Areas**	
	Ensure that a grass strike rate of at least 80% cover has been attained on all disturbed areas or other approved means of stabilisation of grassed areas have been provided. Note: For residential and rural residential subdivisions, the road reserve between kerb and property line shall be turfed as a condition of completion.	Prior to works being accepted On Maintenance.

ADVICES	
1	**Development Permit**
	This approval shall comply with all the conditions of related approval as stipulated in Council's Decision Notice – Development Permit dated 24 August 2023 referenced as DA/2023/4535. The Applicant needs to be aware that the Currency Period of that Decision Notice may determine the validity period of this Decision Notice.
2	**Extent of Checking by Council**
	This approval shall not be taken to mean that the drawings have been checked in detail and Council accepts no responsibility whatsoever for the survey information, the design, or for the accuracy of any information or detail contained in the approved drawings and specifications.
3	**Aboriginal Cultural Heritage Act**
	The *Aboriginal Cultural Heritage Act 2003* commenced in Queensland on April 16, 2004. Under the Act, indigenous parties are key in assessing cultural heritage significance. The *Aboriginal Cultural Heritage Act 2003* establishes a Duty of Care for indigenous cultural heritage. This applies on all land and water, including freehold land. The Cultural Heritage Duty of Care lies with the person or entity conducting the activity. Penalty provisions apply for failing to fulfil the Cultural Heritage Duty of Care. Those proposing an activity that involves additional surface disturbance beyond that which has already occurred on the proposed site need to be mindful of the Duty of Care requirement. Details of how to fulfil the Duty of Care are outlined in the Duty of Care Guidelines gazetted with the Act. Council strongly advises that you contact the relevant state agency to obtain a copy of the Duty of Care Guidelines and further information on the responsibilities of developer under the terms of the *Aboriginal Cultural Heritage Act 2003*.
4	**Environmental Protection Act**
	It remains the duty of care of the site owner not to cause Environmental Harm as defined under the *Environmental Protection Act 1994*.
5	**Road and Stormwater infrastructure**
	In respect to Road and Stormwater infrastructure, the works shall be designed and constructed in accordance with the relevant Planning scheme codes and policies; The current relevant planning scheme codes and policies are: • Works code; • Reconfiguring a lot codes; • PSP- Integrated Design • PSP- Operational Works Inspection, Maintenance and Bonding Procedures. All of which may be downloaded free of charge from Council's website at www.moretonbay.qld.gov.au.

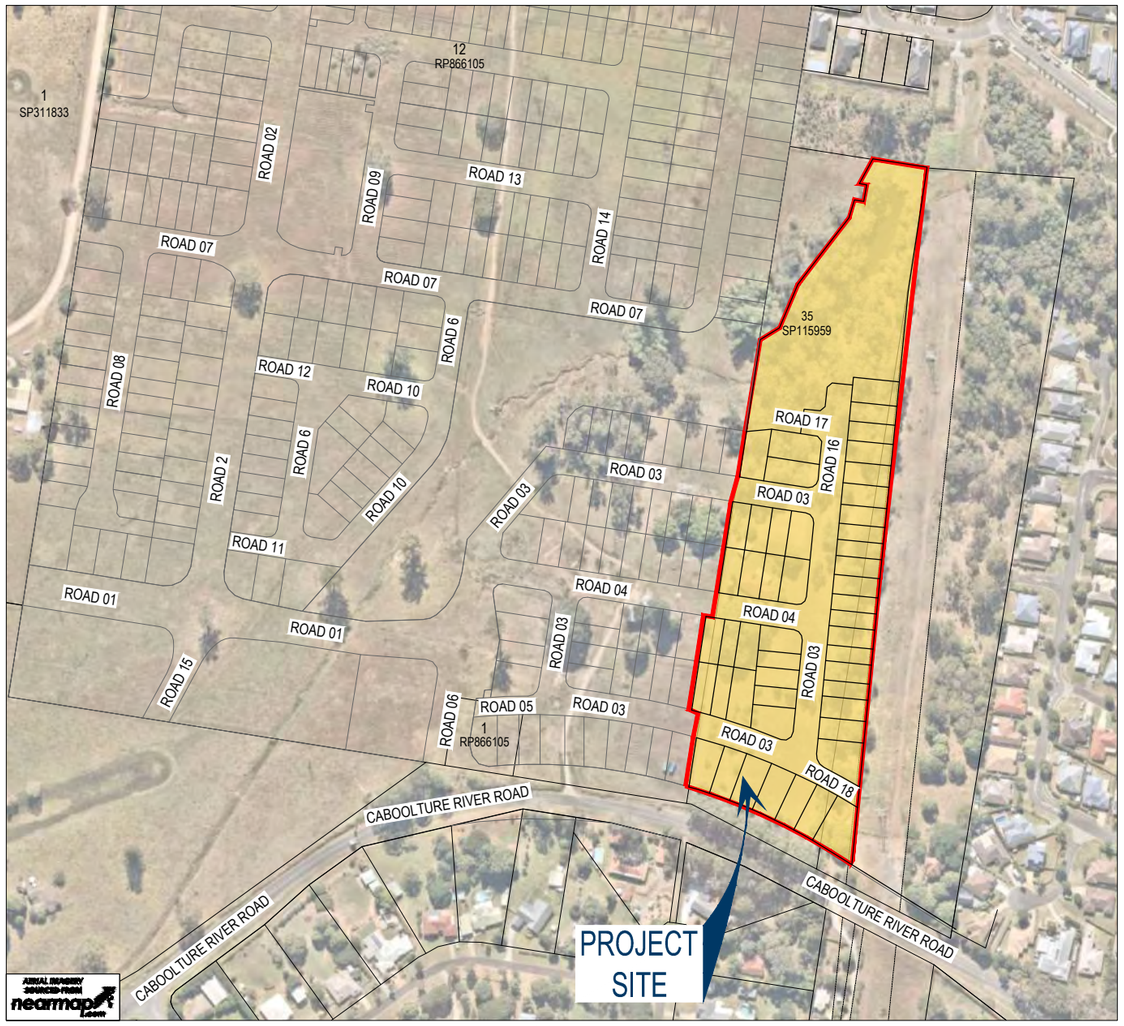
ADVICES	
	The PSP- Operational Works Inspection, Maintenance and Bonding Procedures also contains details of other requirements such as: 1. arrangements for works going On or Off Maintenance; 2. inspection and testing; 3. checklists and certification proforma; 4. bonding procedures. Should further information be required regarding the road and stormwater component of the Operational Works Application, please contact Council's Officer, Xavier Dubreuil on phone (07) 5433 2739.
6	**Acceptance Based on Applicant's Certification**
	Council's acceptance of the above submission is based solely on the applicant's certification that the proposal conforms totally to Council's Planning Scheme, Planning Scheme Policies and standard drawings.
7	**Biosecurity Act 2014 - Fire Ant Control**
	Significant portions of the Moreton Bay are within Fire Ant Biosecurity Zone 2 and must remain vigilant for the presence of fire ants. Under the Biosecurity Act 2014, individuals and businesses are responsible for ensuring that they follow the movement controls for specific organic materials to help prevent the spread of fire ants within South East Queensland's fire ant biosecurity zones. Movement of a fire ant carrier from within the fire ant biosecurity zone may need a biosecurity instrument permit. More information is available on https://www.fireants.org.au/treat/business-and-industry/movement-controls

ATTACHMENT 3

Approved Plans / Documents

LILYWOOD LANDINGS

STAGE 23 - OPERATIONAL WORKS
FOR FOREVERLEN PTY LTD



LOCALITY PLAN
N.T.S

MORETON BAY REGIONAL COUNCIL

AREA OF SITE: 4.454 ha

LOT INFORMATION

LOT 35 ON SP 115959

DRAWINGS INDEX

CONSTRUCTION NOTE

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:

- CRR INTERSECTION & IDC SET - 22-000082_CRR
- BULK EARTHWORKS SET - 22-000082_EWKS
- STAGE 1A & 1B SET - 22-000082_1A-1B
- STAGE 2 SET - 22-00082_2
- STAGE 3 SET - 22-00082_3
- STAGE 4 SET - 22-00082_4
- GEOTECHNICAL REPORT
- BAF TRUNK WATER INFRASTRUCTURE SET - 22-000082_TWI
- DOBSON LANE TRUNK GRAVITY SEWER SET - 20-000027
- SIGNALS PLANS (BY CV SERVICES)
- LANDSCAPE PLANS (BY AECOM)
- ELECTRICAL/ COMMS PLAN (BY CV SERVICES)

CONSTRUCTION HOLD POINT

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY LEVELS OF ALL EXISTING CROSSINGS AND CONNECTION POINTS.

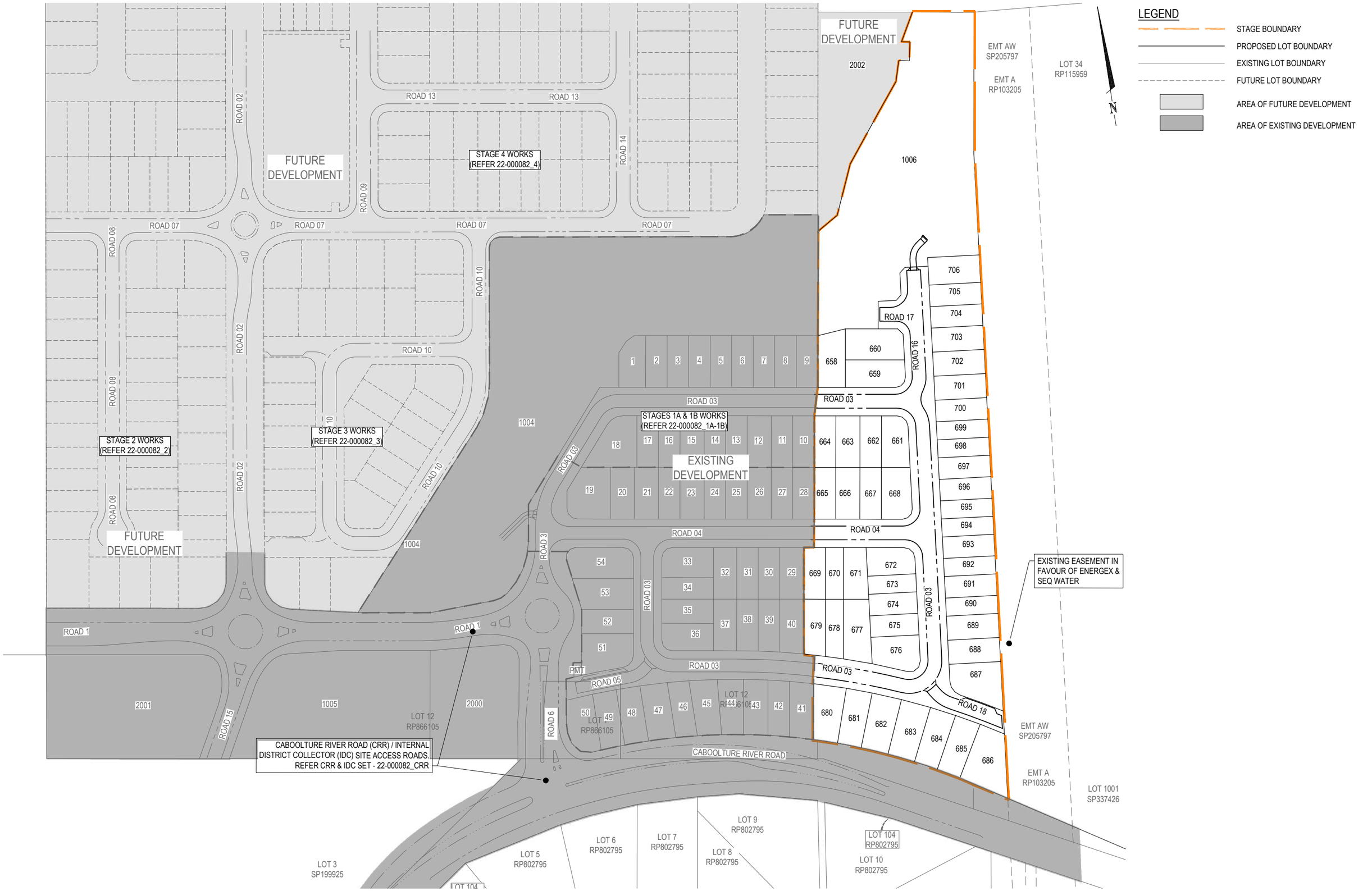
LILYWOOD LANDINGS

STAGE 23 DA REF NO. DA/2023/3497

Project No.:	Stage:	Milestone:	Revision Date.:	Drawing No.:	Revision:
22-000082_23	23	OPERATIONAL WORKS	13/10/23	1000	B

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:1000 / 1:2000 — 10 0 10 20 30 40 50m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS — STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: SITE LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1100	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023

JOIN

FOR CONTINUATION, REFER DRG No. 22-000082_23_1201

LINE

ROAD 03

ROAD 18

EXISTING DEVELOPMENT

LOT 1000 SP337426

EMT AW SP205797

EMT A RP103205

CABOOLTURE RIVER ROAD

673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691

40 41

VARIES (0.7 - 1.4)

EXISTING RETAINING WALL AND ACOUSTIC FENCE PREVIOUSLY COMPLETED, REFER 22-000082_CRR

REFER TO 22-000082_23-1204 FOR RETAINING WALL LONG SECTION.

TRANSITION RETAINING WALL OFFSET OVER 2.4m.

PROVIDE 1.8m HIGH TIMBER FENCE AND CONCRETE SWALE AS PER DETAIL ON 22-000082_23-1205.

RETAINING WALL AND ACOUSTIC FENCE TO BE OFFSET 0.5m FOR LOT 686 ALONG EASTERN BOUNDARY, REFER DETAIL ON 22-000082_23-1205.

JOIN TO EXISTING RETAINING WALL AND ACOUSTIC FENCE PREVIOUSLY COMPLETED, REFER 22-000082_CRR

B 1205

H 1205

A 1205

LEGEND

- STAGE BOUNDARY
- STORMWATER STRUCTURE
- PROPOSED FOOTPATH
- 64.0 EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 DESIGN SURFACE CONTOUR (0.2m INTERVALS)
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- EXISTING TRUNK SEWER
- PROPOSED SEWER MAIN
- PROPOSED STORMWATER
- PROPOSED SLEEPER RETAINING WALL TYPE 1
- PROPOSED SLEEPER RETAINING WALL TYPE 2
- PROPOSED SLEEPER RETAINING WALL TYPE 3
- PROPOSED BOULDER RETAINING WALL
- PROPOSED SLEEPER RETAINING WALL + ACOUSTIC FENCE
- EXISTING SLEEPER RETAINING WALL + ACOUSTIC FENCE
- RL.22.15 FINISHED SURFACE LEVEL
- PROPOSED LOT BOUNDARY
  BUILD TO BOUNDARY
  INDICATIVE DRIVEWAY LOCATION
- PROPOSED CUT BATTER
- PROPOSED FILL BATTER

NOTE:

1. REFER TO DRG 22-000082_23_1203 FOR STANDARD RETAINING WALL NOTES AND DETAILS.

CAUTION !! UNDERGROUND TELECOMMS CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN

UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! OVERHEAD ELECTRICAL CABLES

OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND ELECTRICAL CABLES

UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

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DRAWN CHECK: aa

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

Ryan Ashworth

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 1:500 5 0 5 10m A1 A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS

STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: RETAINING WALL SETOUT PLAN SHEET 1 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1200	B

Moreton Bay Regional Council

24/10/2023

JOIN — FOR CONTINUATION, REFER DRG No. 22-000082_23_1202 — LINE

LEGEND

- STAGE BOUNDARY
- STORMWATER STRUCTURE
- PROPOSED FOOTPATH
- 64.0 EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 DESIGN SURFACE CONTOUR (0.2m INTERVALS)
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- EXISTING TRUNK SEWER
- PROPOSED SEWER MAIN
- PROPOSED STORMWATER
- PROPOSED SLEEPER RETAINING WALL TYPE 1
- PROPOSED SLEEPER RETAINING WALL TYPE 2
- PROPOSED SLEEPER RETAINING WALL TYPE 3
- PROPOSED BOULDER RETAINING WALL
- PROPOSED SLEEPER RETAINING WALL + ACOUSTIC FENCE
- EXISTING SLEEPER RETAINING WALL + ACOUSTIC FENCE
- RL.22.15 FINISHED SURFACE LEVEL
- PROPOSED LOT BOUNDARY
- BUILD TO BOUNDARY
- INDICATIVE DRIVEWAY LOCATION
- PROPOSED CUT BATTER
- PROPOSED FILL BATTER

N

NOTE:

1. REFER TO DRG 22-000082_23_1203 FOR STANDARD RETAINING WALL NOTES AND DETAILS.

CAUTION !! UNDERGROUND TELECOMMS CABLES	CAUTION !! UNDERGROUND GAS MAIN
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.	UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING
CAUTION !! OVERHEAD ELECTRICAL CABLES	**CAUTION !! UNDERGROUND ELECTRICAL CABLES**
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.	UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

JOIN — FOR CONTINUATION, REFER DRG No. 22-000082_23_1200 — LINE

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DRAWING TITLE: RETAINING WALL SETOUT PLAN SHEET 2 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1201	B

Moreton Bay Regional Council

LEGEND

- STAGE BOUNDARY
- STORMWATER STRUCTURE
- PROPOSED FOOTPATH
- EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- DESIGN SURFACE CONTOUR (0.2m INTERVALS)
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- EXISTING TRUNK SEWER
- PROPOSED SEWER MAIN
- PROPOSED STORMWATER
- PROPOSED SLEEPER RETAINING WALL TYPE 1
- PROPOSED SLEEPER RETAINING WALL TYPE 2
- PROPOSED SLEEPER RETAINING WALL TYPE 3
- PROPOSED BOULDER RETAINING WALL
- PROPOSED SLEEPER RETAINING WALL + ACOUSTIC FENCE
- EXISTING SLEEPER RETAINING WALL + ACOUSTIC FENCE
- RL.22.15 FINISHED SURFACE LEVEL
- PROPOSED LOT BOUNDARY
- BUILD TO BOUNDARY
- INDICATIVE DRIVEWAY LOCATION
- PROPOSED CUT BATTER
- PROPOSED FILL BATTER

NOTE:

1. REFER TO DRG 22-000082_23_1203 FOR STANDARD RETAINING WALL NOTES AND DETAILS.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

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JOIN — FOR CONTINUATION, REFER DRG No. 22-000082_23_1201 — LINE

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
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B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 1:500 — 5 0 5 10m — A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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PROJECT: Lilywood LANDINGS
STAGE 23

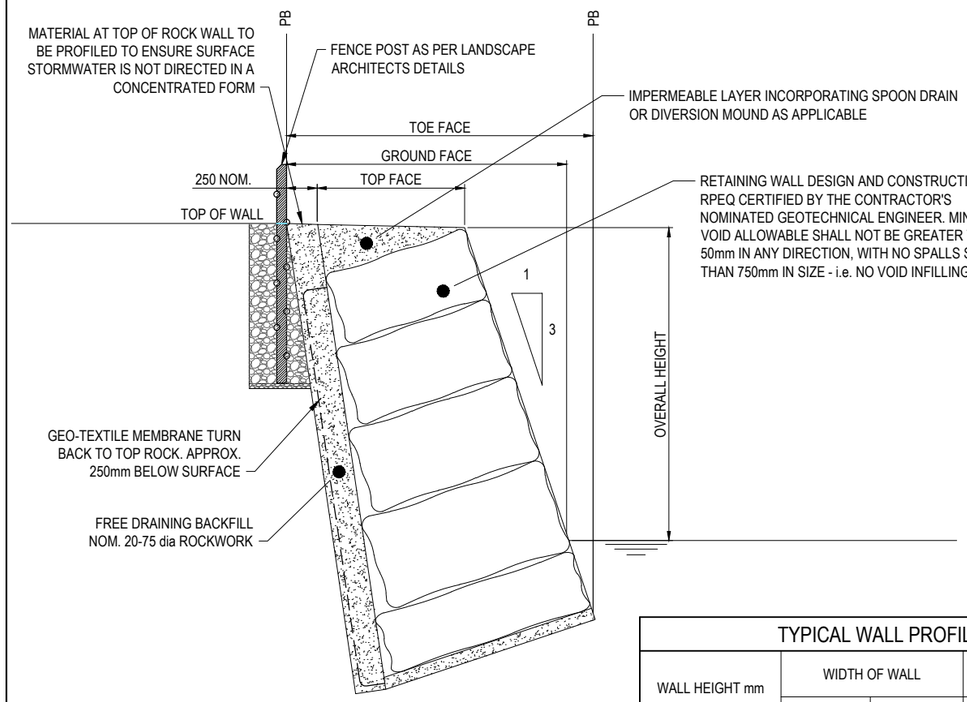
DRAWING TITLE: RETAINING WALL SETOUT PLAN SHEET 3 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1202	B

Moreton Bay Regional Council

RETAINING WALL DESIGN AND CONSTRUCT NOTES:

1. CONCRETE SLEEPER RETAINING WALL IS A DESIGN AND CONSTRUCT ITEM.
2. CONTRACTOR SHALL ENGAGE A RPEQ STRUCTURAL ENGINEER WITH SUITABLE RETAINING WALL EXPERIENCE.
3. FOLLOWING DESIGN PARAMETERS SHALL BE ADOPTED.
   a) SURCHARGE LOAD 5kPa FOR INTERALLOTMENT WALLS.
   b) SURCHARGE LOAD 20kPa WHERE WALLS ARE SUPPORTING ROADS OR DRIVEWAYS.
   c) ALLOW FOR WIND AND DEAD LOADS FOR SOLID 1.8m HIGH FENCE, OR HIGHER IF SPECIFIED IN THE ACOUSTIC REPORT.
   d) ALLOW FOR MAX 1 IN 4 SLOPE AT TOP AND TOE OF WALLS.
   e) TORSIONALLY RIGID BEAMS SUCH AS UC SECTION SHALL BE SPECIFIED.
   f) DESIGN SHALL ACHIEVE 60 YEAR DESIGN LIFE. OR DESIGN LIFE SPECIFIED BY THE RELEVANT AUTHORITY.
   g) CONTRACTOR SHALL ARRANGE GEOTECHNICAL INVESTIGATION AND STRUCTURAL DESIGN SHALL ALLOW FOR CONDITIONS IDENTIFIED IN INVESTIGATION.
   h) WALL DESIGN SHOULD INCLUDE FOUNDATION LEVELS WITH THEIR LINE OF INFLUENCE CLEAR OF ANY PROPOSED UTILITY SERVICES INSTALLATIONS.
4. CONTRACTOR SHALL PROVIDE RPEQ CERTIFIED STRUCTURAL DESIGN PRIOR TO CONSTRUCTION AND FORM 15 CERTIFICATION.
5. CONTRACTOR SHALL ARRANGE FOR RPEQ INSPECTIONS DURING CONSTRUCTION AND PROVIDE RPEQ CERTIFIED FORM 16 PRIOR TO PRACTICAL COMPLETION BEING AWARDED.
6. CONTRACTOR TO CONSIDER NEARBY EXISTING AND PROPOSED SERVICES WITHIN RPEQ DESIGN OF WALLS, AND TO OBTAIN BUILD OVER ASSET APPROVALS WITH THE RELEVANT AUTHORITIES AS REQUIRED BY THE AUTHORITIES' SPECIFICATIONS, PRIOR TO CONSTRUCTION. CONTRACTOR TO PROVIDE BUILD OVER ASSET APPROVALS TO THE SUPERINTENDENT, PRIOR TO CONSTRUCTION.
7. RETAINING WALLS TO BE CONSTRUCTED TO MANUFACTURERS SPECIFICATIONS.
8. PROVIDE APPROVED SAFETY FENCE TO ALL WALLS HIGHER THAN 1.0m.
9. CONTRACTOR TO ENSURE ALL WORKS ADJACENT TO EXISTING RETAINING WALLS IS UNDERTAKEN SO AS NOT TO IMPACT ON THE STRUCTURAL INTEGRITY OF THE EXISTING WALLS. SUBSOIL OUTLETS FOR EXISTING RETAINING WALLS TO BE KEPT FREE DRAINING AT ALL TIMES.
10. WALL ALIGNMENT IS TO BE PEGGED FOR INSPECTION BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
11. WALLS TO BE VERTICAL FACE TYPE TO A MAXIMUM HEIGHT OF 2.5m. TYPE, FINISH AND COLOUR TO BE APPROVED BY SUPERINTENDENT, UNLESS NOTED OTHERWISE.
12. CONTRACTOR IS RESPONSIBLE FOR PROVIDING STRUCTURAL DESIGN, CONSTRUCTION SUPERVISION AND STRUCTURAL CERTIFICATION BY A SUITABLY QUALIFIED AND EXPERIENCED, REGISTERED STRUCTURAL ENGINEER (RPEQ) FOR ALL WALLS 1.0m HIGH OR GREATER.
13. BE LODGED FOR EARTH RETAINING STRUCTURES >1000mm HIGH.
14. ALL WALLS TO BE DESIGNED BASED ON A GEOTECHNICAL ASSESSMENT OF INSITU SOILS BY A SUITABLY QUALIFIED ENGINEER. SHOULD WALLS REQUIRE ADDITIONAL FOOTINGS AND/OR FOUNDATION SUPPORT, THESE ARE TO BE FACTORED INTO THE DESIGN AND THE TENDERED COST OF THE WALLS.
15. PRIVATE WALLS INCLUDING FOOTING TO BE CONTAINED WHOLLY WITHIN PRIVATE PROPERTY AND ARE TO BE FULLY CONTAINED WITHIN THE LOWER LOT UNLESS WALL ABUTS ROAD RESERVE/PARK, IN WHICH CASE THE WALL SHALL BE CONTAINED WHOLLY WITHIN THE PRIVATE PROPERTY.
16. SUBSOIL DRAINAGE BEHIND ALL WALLS TO INCLUDE DISCHARGE PIPE INTO THE NEAREST STORMWATER STRUCTURE (OR DEDICATED KERB ADAPTOR) AND MUST BE FREE DRAINING. ALL WALL DRAINAGE LINES DISCHARGING THROUGH LOTS OR ROAD VERGE TO BE SOLID uPVC (NO SLOTS) AND MUST BE FREE DRAINING.
17. WALLS ARE TO BE CAPABLE OF SUPPORTING TWO STOREY "HEAVY CONSTRUCTION" BUILDINGS.
18. CONTRACTOR TO PROVIDE & MAINTAIN SAFETY FENCE TO ALL WALLS GREATER THAN 1.0m IN HEIGHT.
19. A MINIMUM 600mm CLEARANCE IS TO BE MAINTAINED BETWEEN THE OUTSIDE OF THE BORED PIERS AND THE OUTSIDE OF ANY SEWER MAIN OR ROOFWATER PIPE IN THE VICINITY OF THE RETAINING WALL.
20. RETAINING WALL DESIGN AND CONSTRUCTION TO CONSIDER AND CATER FOR ALL SERVICES LOCATED UNDER, OR IN THE VICINITY OF, THE RETAINING WALL.
21. ALL WALLS TO BE DESIGNED TO ALLOW FOR 1.8m HIGH ENCLOSED FENCE.
22. WHERE APPLICABLE, RETAINING WALL DESIGN AND CONSTRUCTION SHALL MAKE ANY NECESSARY ALLOWANCES TO FACILITATE AND ENABLE FUTURE RETAINING WALL JOINTS/CONNECTIONS/EXTENSIONS.
23. EXTENT OF ALL WALLS TO BE CONFIRMED BY CONTRACTOR WITH SUPERINTENDENT PRIOR TO STARTING CONSTRUCTION.
24. ORANGE MESH SAFETY FENCING TO BE ERECTED ON TOP OF WALL 1.0m HIGH OR GREATER AND MAINTAINED UNTIL OFF-MAINTENANCE.

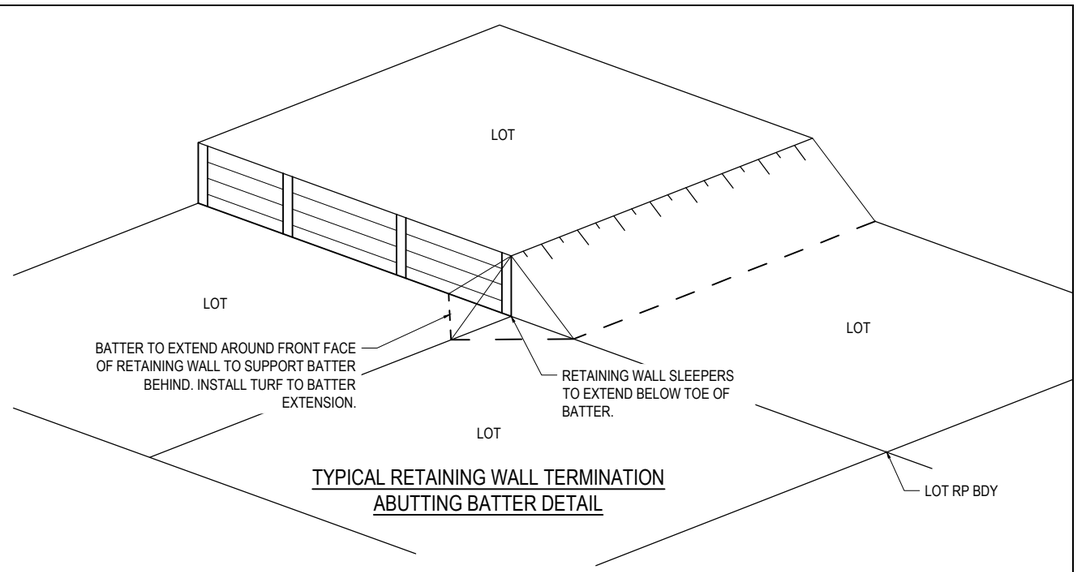


TYPICAL BOULDER RETAINING WALL DETAIL
N.T.S

BOULDER RETAINING WALL NOTE
STEPPED BOULDER RETAINING WALLS TO BE CONSTRUCTED WITH 1.5m HORIZONTAL CLEARANCE BETWEEN THE FRONT AND BACK OF SUBSEQUENT WALLS.

TYPICAL WALL PROFILE

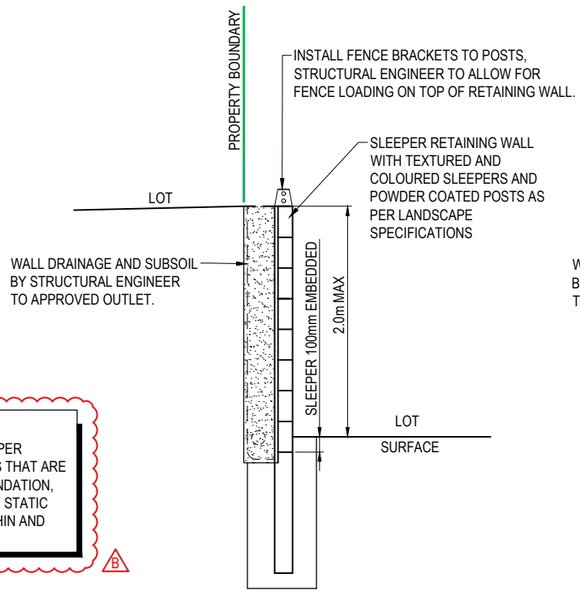
WALL HEIGHT mm	WIDTH OF WALL		WALL EMBEDMENT
	BASE	TOP	FRONT FACE
1000	700	600	300
1500	900	600	400
2000	1200	750	500
2500	1500	750	500
3000	1800	900	750



TYPICAL RETAINING WALL TERMINATION ABUTTING BATTER DETAIL

NOTE
WHERE RETAINING WALLS (BOULDER AND SLEEPER RETAINING WALLS) ARE LOCATED WITHIN AREAS THAT ARE IMPACTED BY PERMANENT OR TEMPORARY INUNDATION, WALLS MUST BE DESIGNED FOR THE EFFECT OF STATIC AND TRANSIENT PORE WATER PRESSURES WITHIN AND EXTERNAL TO THE STRUCTURE.

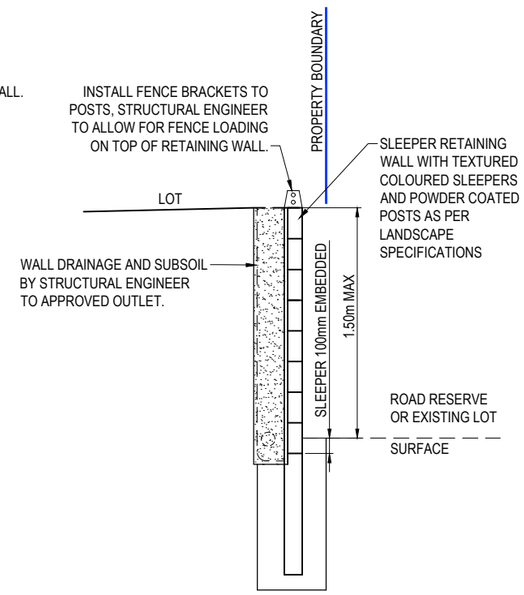
B



TYPICAL SINGLE TIER CONCRETE SLEEPER RETAINING WALL AT BDY TYPE 1 (IN LOW-SIDE LOT, INCLUDING B2B WALLS)
N.T.S

NOTE
DETAIL TO APPLY TO ALL RETAINING WALL TERMINATIONS ADJACENT TO BATTERS INCLUDING AT VERGES.

MINIMUM DESIGN REQUIREMENTS
- SURCHARGE LOADING ON BACKFILL : 5KPa FOR LOTS AND 10KPa FOR ROAD RESERVE.
- POST AND FOOTING DESIGN TO ALLOW FOR 1.8m HIGH FENCE OR HIGHER IF SPECIFIED IN THE ACOUSTIC REPORT.
- MAX 1V:4H SLOPE BEHIND WALL



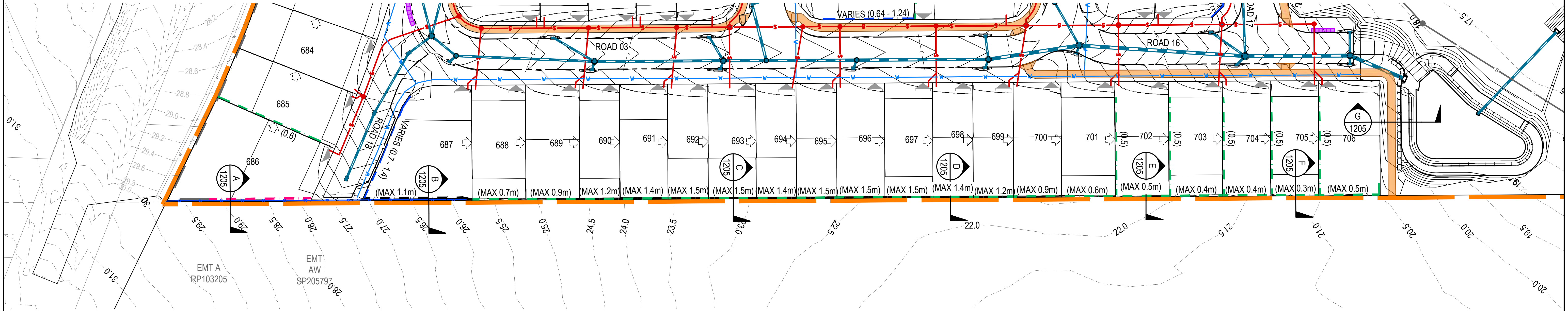
TYPICAL SINGLE TIER CONCRETE SLEEPER RETAINING WALL AT BDY TYPE 2 (IN HIGH-SIDE LOT, FILL AGAINST ROAD RESERVE OR NEIGHBOURING PROPERTY BOUNDARY)
N.T.S

NOTES:
1. RETAINING WALLS TO BE CONSTRUCTED TO MANUFACTURERS SPECIFICATIONS.
2. CONTRACTOR TO PROVIDE STRUCTURAL CERTIFICATION FOR RETAINING WALLS DESIGN AND CONSTRUCTION.
3. PROVIDE APPROVED SAFETY FENCE TO ALL WALLS HIGHER THAN 1.0m.
4. ALL RETAINING WALL FOOTINGS TO BE LOCATED A MINIMUM 1.0m HORIZONTALLY CLEAR OF THE ROOFWATER AND SEWER AND BE TAKEN BELOW THE ZONE OF INFLUENCE.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH
STATUS: FOR APPROVAL
APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD
SCALE: AS SHOWN
CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP
egis

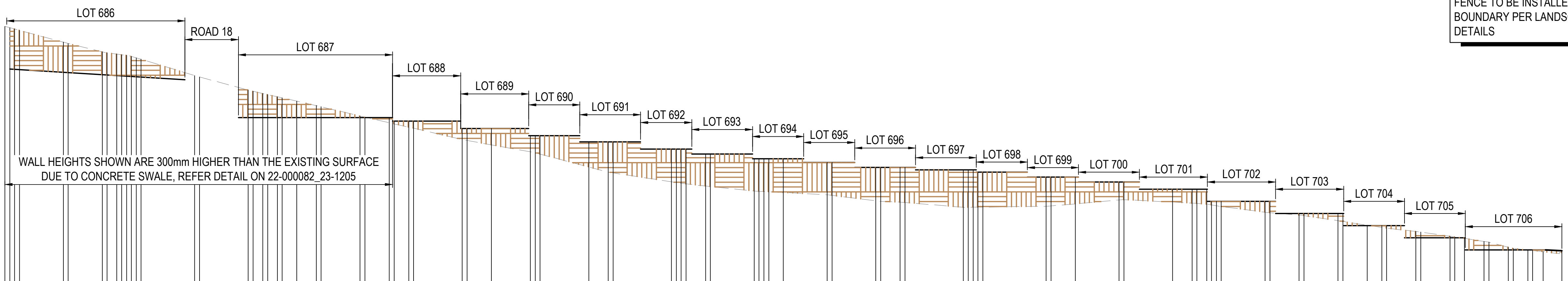
www.egis-group.com
PROJECT: Lilywood LANDINGS
STAGE 23
DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.
DRAWING TITLE: RETAINING WALL NOTES & DETAILS
PROJECT No. 22-000082_23
DRAWING No. 1203
REVISION B



PLAN VIEW

SCALE 1:500

NOTE
FENCE TO BE INSTALLED ALONG THE ENTIRE EASTERN BOUNDARY PER LANDSCAPE ARCHITECTS PLANS AND DETAILS



DATUM RL 15.0

CHAINAGES	WALL HEIGHT	PAD LEVEL	EXISTING SURFACE
0.000			29.748
1.000	2.000	27.992	29.698
2.000	1.949	27.980	29.641
3.000	1.919	27.968	29.586
12.000	1.542	27.858	29.100
13.000	1.501	27.846	29.047
20.000	1.245	27.761	28.706
21.000	1.216	27.749	28.665
23.000	1.185	27.724	28.610
24.000	1.171	27.712	28.583
25.000	1.160	27.700	28.560
26.000	1.124	27.688	28.512
27.000	1.080	27.676	28.455
28.000	1.034	27.663	28.397
39.000			27.727
40.000			27.668
50.000	1.432		27.132
51.000	1.378		27.078
53.000	1.287	26.000	26.987
54.000	1.242	26.000	26.942
56.000	1.152	26.000	26.852
57.000	1.107	26.000	26.807
60.000	0.972	26.000	26.672
64.000	0.792	26.000	26.492
65.000	0.745	26.000	26.445
73.000	0.360	26.000	26.220
74.000	0.314	26.000	26.014
79.000	0.515	26.000	25.785
80.000	0.111	25.850	25.739
83.000	0.244	25.850	25.606
84.000	0.289	25.850	25.561
94.000	0.456	25.550	25.094
95.000	0.496	25.550	25.054
100.000	0.675	25.550	24.875
108.000	0.662	25.250	24.588
109.000	0.699	25.250	24.551
110.000	0.753	25.250	24.497
120.000	1.034	25.000	23.966
124.000	1.247	25.000	23.753
125.000	1.278	25.000	23.722
137.000	1.343	24.700	23.357
138.000	1.373	24.700	23.327
139.000	1.405	24.700	23.295
140.000	1.428	24.700	23.272
144.000	1.319	24.500	23.181
145.000	1.340	24.500	23.160
154.000	1.320	24.300	22.980
155.000	1.335	24.300	22.965
156.000	1.341	24.300	22.959
157.000	1.351	24.300	22.949
160.000	1.382	24.300	22.918
169.000	1.327	24.150	22.823
170.000	1.352	24.150	22.798
179.000	1.377	23.950	22.573
180.000	1.400	23.950	22.550
184.000	1.431	23.950	22.519
185.000	1.446	23.950	22.504
197.000	1.542	23.850	22.308
198.000	1.546	23.850	22.304
199.000	1.536	23.850	22.314
200.000	1.436	23.750	22.314
201.000	1.436	23.750	22.314
214.000	1.197	23.550	22.353
215.000	1.189	23.550	22.361
220.000	1.101	23.550	22.449
229.000	0.741	23.350	22.609
230.000	0.729	23.350	22.621
240.000	0.531	23.050	22.519
244.000	0.572	23.050	22.478
245.000	0.585	23.050	22.465
247.000	0.619	23.050	22.431
248.000	0.143	22.550	22.407
249.000	0.178	22.550	22.372
250.000	0.208	22.550	22.342
259.000	0.444	22.550	22.106
260.000	0.467	22.550	22.083
266.000	0.065	22.050	21.985
267.000	0.086	22.050	21.964
274.000	0.296	22.050	21.754
275.000	0.327	22.050	21.723
280.000	0.019	21.550	21.569
283.000	0.073	21.550	21.477
284.000	0.101	21.550	21.449
290.000	0.265	21.050	21.315
291.000	0.238	21.050	21.288
297.000	0.066	21.050	21.116
298.000	0.037	21.050	21.087
300.000	0.023	21.050	21.027
304.000	0.355	20.550	20.905
305.000	0.324	20.550	20.874
309.000	0.115	20.550	20.665
310.000	0.064	20.550	20.614
313.000	0.003	20.550	20.547
314.000	0.023	20.550	20.527
316.163	0.066	20.550	20.484
320.000	0.079	20.517	20.438

HORIZ SCALE: 500
VERTICAL SCALE: 100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH
STATUS: FOR APPROVAL
APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:500 / 1:1000 HORIZONTAL (10 5 0 10 20m, A1 / A3); 1:100 / 1:200 VERTICAL (2 1 0 2 4m, A1 / A3); 1:500 / 1:1000 (10 5 0 10 20m, A1 / A3)

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

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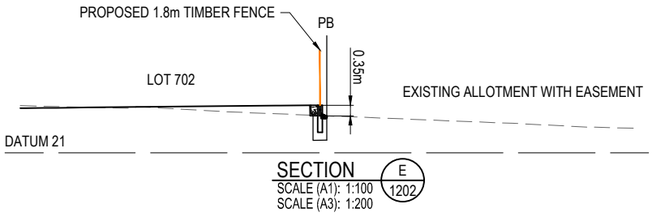
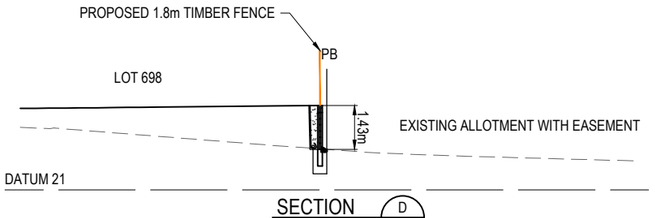
PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: RETAINING WALL LONGITUDINAL SECTION
PROJECT No.: 22-000082_23
DRAWING No.: 1204
REVISION: B



SECTION E
SCALE (A1): 1:100
SCALE (A3): 1:200
1202



SECTION D
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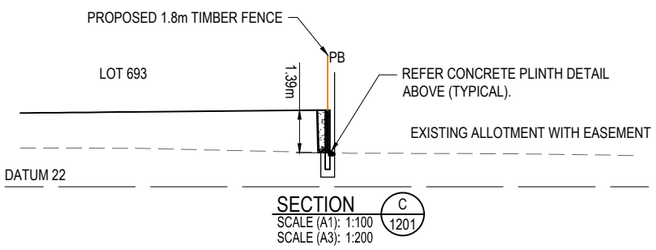
1201



SECTION C
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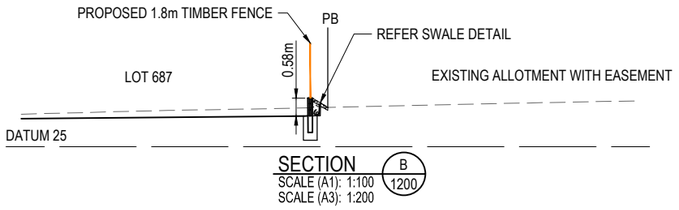
1201



SECTION B
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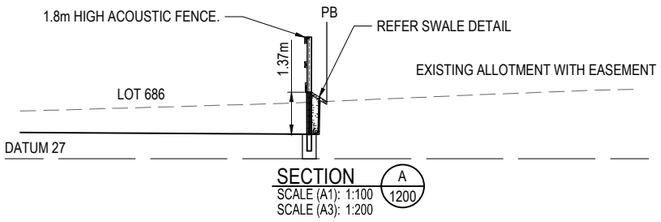
1200



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SCALE (A3): 1:200
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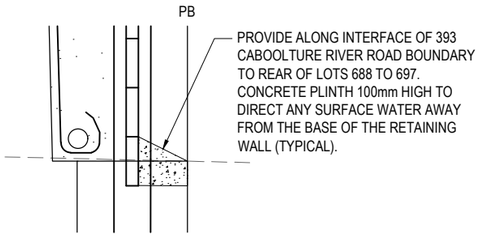
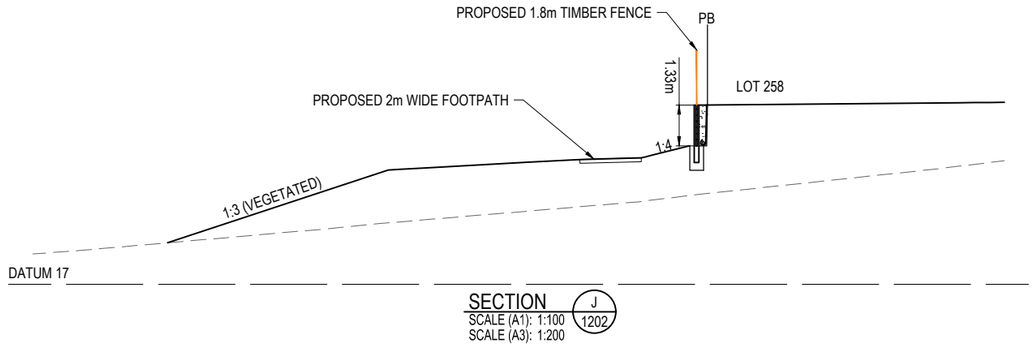


TYPICAL CONCRETE PLINTH DETAIL
N.T.S



SECTION J
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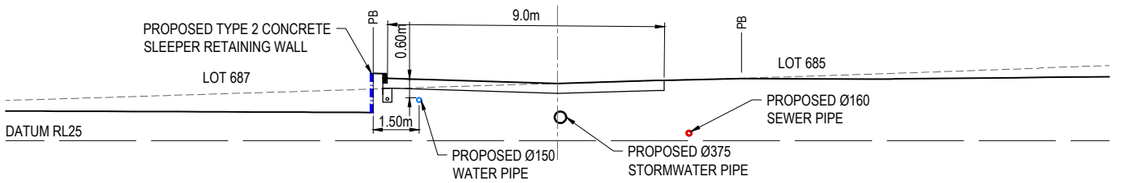
SCALE (A3): 1:200
1202



SECTION H
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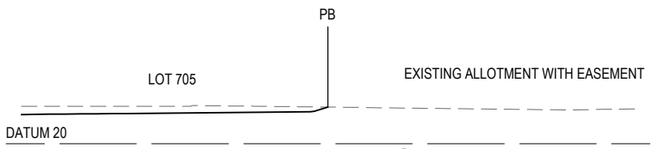
SCALE (A3): 1:200
1200



SECTION F
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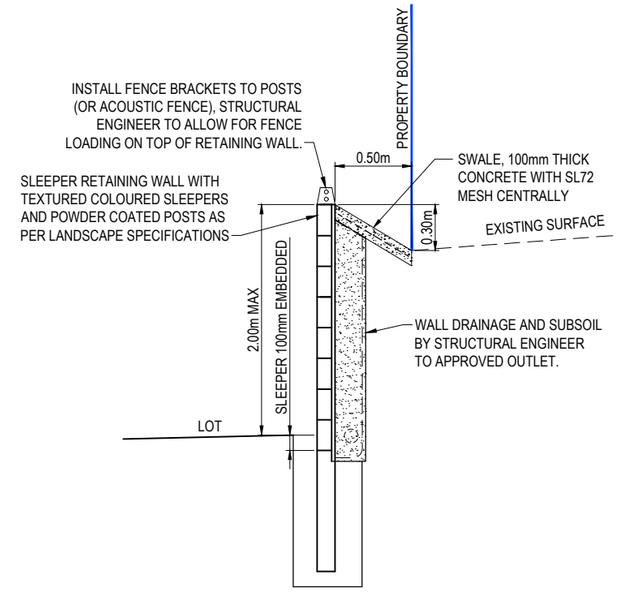
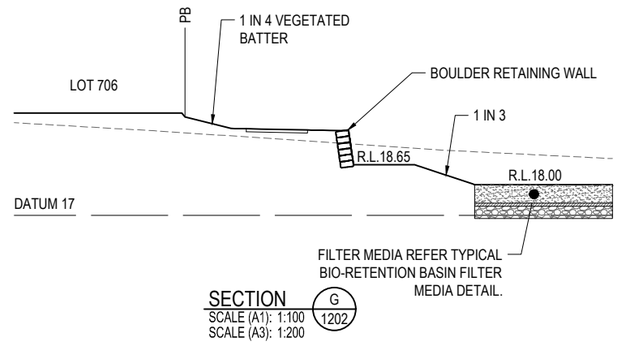
SCALE (A3): 1:200
1202



TYPICAL SINGLE TIER CONCRETE SLEEPER RETAINING WALL AT BDY TYPE 3 (ADJACENT TO 393 CABOOLTURE RIVER ROAD FOR LOTS 686 AND 687)
N.T.S

NOTE
FOR ALL RETAINING WALL NOTES, DETAILS AND REQUIREMENTS REFER 22-000082_23-1203.



SECTION G
SCALE (A1): 1:100
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1202

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:100 / 1:200 — 1 0 1 2 3 4 5m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

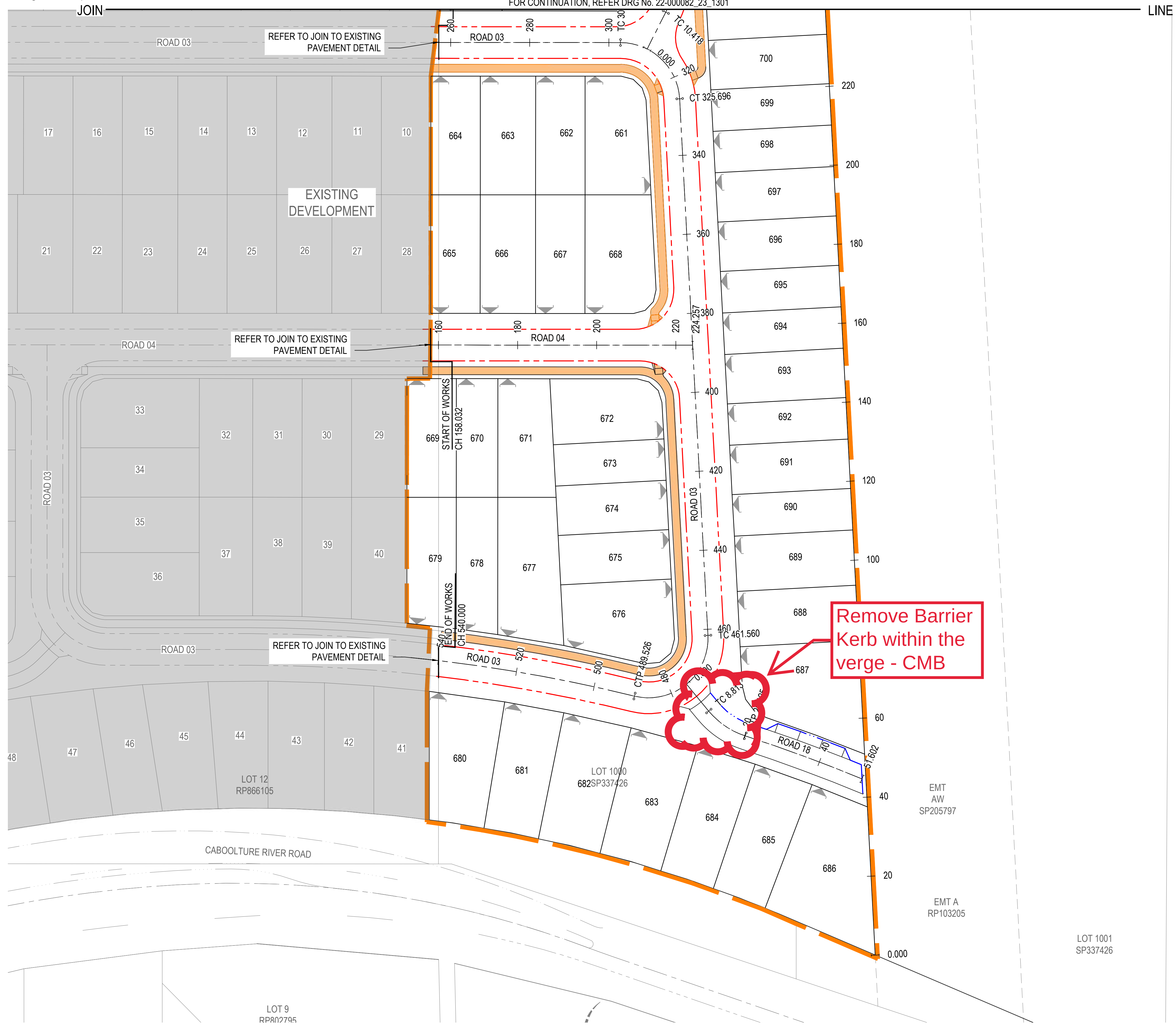
DRAWING TITLE: RETAINING WALL SETOUT SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1205	B

Moreton Bay Regional Council

24/10/2023

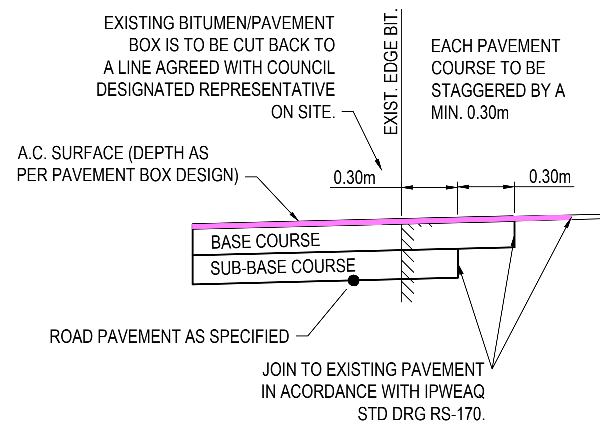
FOR CONTINUATION, REFER DRG No. 22-000082_23_1301



LEGEND

- STAGE BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- INDICATIVE DRIVEWAY LOCATIONS
- BUILD TO BOUNDARY
- CONCRETE FOOTPATH (2m WIDE)

NOTE:
REFER TO DRAWING 22-000082_23_1302 FOR KERB DETAILS AND CONTROL LINE SETOUT TABLES



JOIN TO EXISTING PAVEMENT DETAIL
N.T.S.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH
STATUS: FOR APPROVAL
APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE 1:500 A1, 1:1000 A3 (0 5 10 20m)

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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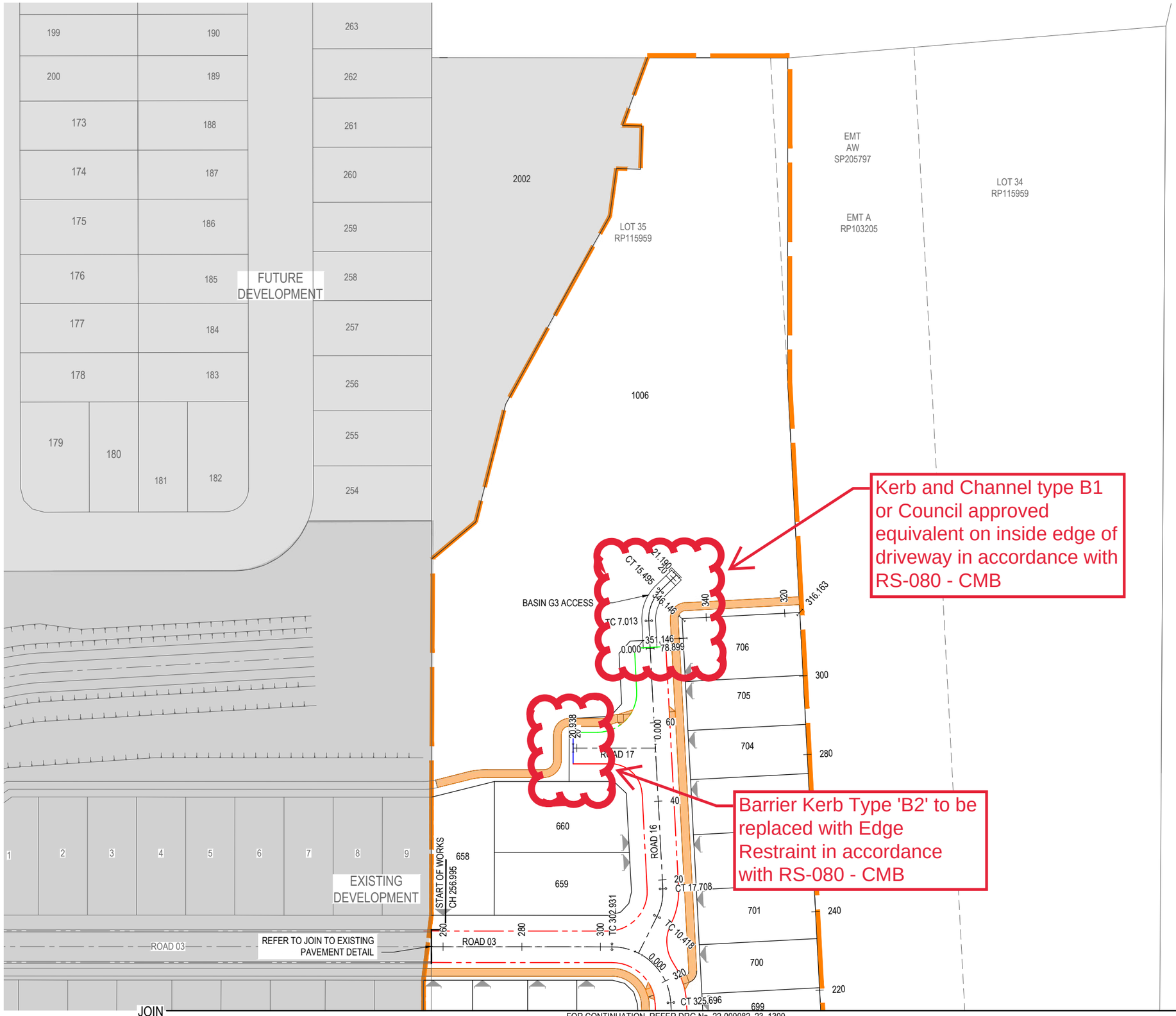
PROJECT: Lilywood LANDINGS STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: CONTROL LINE SETOUT PLAN SHEET 1 OF 2
PROJECT No. 22-000082_23
DRAWING No. 1300
REVISION B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497 24/10/2023



Kerb and Channel type B1 or Council approved equivalent on inside edge of driveway in accordance with RS-080 - CMB

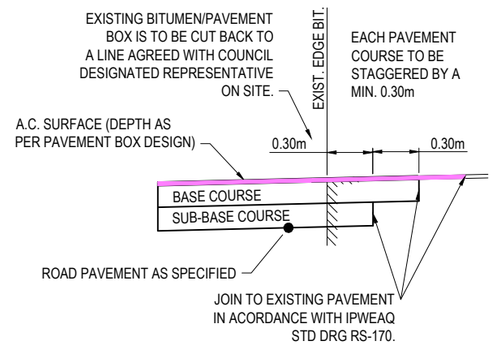
Barrier Kerb Type 'B2' to be replaced with Edge Restraint in accordance with RS-080 - CMB

N

LEGEND

- STAGE BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- INDICATIVE DRIVEWAY LOCATIONS
- BUILD TO BOUNDARY
- CONCRETE FOOTPATH (2m WIDE)

NOTE:
REFER TO DRAWING 22-000082_23_1302 FOR KERB DETAILS AND CONTROL LINE SETOUT TABLES



JOIN TO EXISTING PAVEMENT DETAIL
N.T.S.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:500 / 1:1000 — 10 5 0 10 20m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
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PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: CONTROL LINE SETOUT PLAN SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1301	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023

ROAD 3 CONTROL LINE SETOUT TABLE

	PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
EXISTING ROAD	IP 1	0.000	90896.379	502042.959	8°55'08.74"			
	TC	52.303	90904.488	502094.629	8°55'08.74"			
	IP 2	65.993	90906.665	502108.503		R = 50.000	27.381	31°23'33.09"
	CT	79.683	90915.747	502119.214	40°17'41.82"			
	TC	125.608	90945.447	502154.242	40°17'41.82"			
	IP 3	133.286	90950.897	502160.669		R = 15.000	15.355	58°39'12.57"
	CT	140.964	90959.232	502159.358	98°56'54.40"			
	TC	302.931	91119.217	502134.165	98°56'54.40"			
	IP 4	314.313	91133.267	502131.953		R = 15.000	23.765	86°57'18.56"
	CT	325.696	91131.805	502117.805	185°54'12.96"			
	TC	461.560	91117.830	501982.661	185°54'12.96"			
	IP 5	475.543	91115.752	501962.562		R = 15.000	27.966	106°49'23.52"
	CC	489.526	91097.115	501970.369	292°43'35.49"			
	IP 6	538.580	91051.650	501989.412		R = -408.000	98.108	13°46'38.45"
EXISTING ROAD	CT	587.634	91002.959	501997.079	278°56'57.04"			
	TC	624.052	90966.983	502002.745	278°56'57.04"			
	IP 7	635.833	90952.167	502005.078		R = 15.000	23.561	89°59'48.96"
	CT	647.614	90954.499	502019.895	8°56'46.00"			
	IP 8	709.614	90964.141	502081.141	8°56'46.00"			

BASIN G3 ACCESS CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	91140.585	502307.584	5°54'12.96"			
TC	7.013	91141.307	502314.559	5°54'12.96"			
IP 2	11.254	91141.771	502319.051		R = 10.000	8.483	48°36'07.23"
CT	15.495	91145.447	502321.672	54°30'20.18"			
IP 3	21.190	91150.084	502324.979	54°30'20.18"			

ROAD 4 CONTROL LINE SETOUT TABLE

EXISTING ROAD

PT	CHAINAGE	EASTING	NORTHING	BEARING
IP 1	0.000	90903.860	502090.633	98°56'54.40"
IP 2	234.257	91125.388	502055.751	98°56'54.40"

ROAD 16 CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	91125.645	502131.523	35°44'10.97"			
TC	10.418	91131.730	502139.980	35°44'10.97"			
IP 2	14_233	91133.908	502143.007		R = -14.000	7.290	29°49'58.14"
CT	17.708	91134.291	502146.717	5°54'12.84"			
IP 3	78.899	91140.585	502307.584	5°54'12.84"			

ROAD 17 CONTROL LINE SETOUT TABLE

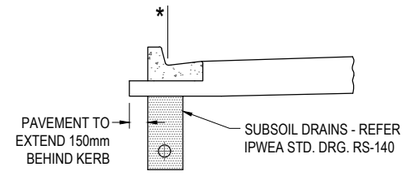
PT	CHAINAGE	EASTING	NORTHING	BEARING
IP 1	0.000	91137.976	502182.353	278°56'54.40"
IP 2	20.938	91117.294	502185.609	278°56'54.40"

ROAD 18 CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	91110.572	501971.301	149°18'45.43"			
TC	8.813	91115.070	501963.723	149°18'45.43"			
IP 2	14.469	91118.036	501958.725		R = -20.000	11.311	32°24'17.86"
CC	20.125	91123.218	501956.095	116°54'27.57"			
IP 3	35.863	91137.260	501948.969		R = 406.100	31.478	4°26'27.94"
IP 4	51.602	91150.708	501940.777	121°20'55.51"			

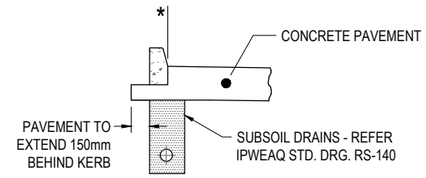
RETAINING WALL CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	BEARING
IP 1	0.000	91147.112	501896.232	5°53'51.46"
IP 2	316.163	91179.598	502310.723	
IP 3	346.146	91149.774	502313.803	
IP 4	351.146	91149.259	502308.829	185°54'12.96"



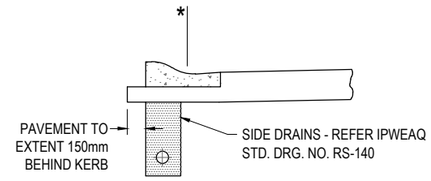
BARRIER KERB AND CHANNEL
TYPE B1 (300mm) IPWEA
SCALE 1 : 25

* NOMINAL KERB LINE



BARRIER KERB ONLY
TYPE B2 IPWEA
SCALE 1 : 25

* NOMINAL KERB LINE



MOUNTABLE KERB AND CHANNEL
TYPE M3 IPWEAQ
SCALE 1 : 25

* NOMINAL KERB LINE

NOTE:
REFER TO DRG 22-000082_23_1300 FOR DRG LEGEND.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MA

STATUS: FOR APPROVAL

APPROVED
RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:25 0.25 0 0.25 0.5 0.75 1.0 1.25m A1
1:50 A3

CLIENT
FOREVERLEN PTY LTD
LENNIUM GROUP

PROJECT
Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE
CONTROL LINE SETOUT TABLES AND DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1302	B

JOIN

FOR CONTINUATION, REFER DRG No. 22-000082_23_1311

LINE

JOIN PROPOSED 2m WIDE FOOTPATH INTO EXISTING FOOTPATH NEATLY.

REFER TO JOIN TO EXISTING PAVEMENT DETAIL ON DRG 23-000082.05_1300

REFER WATER PLANS FOR LIVE CONNECTION DETAIL.

START OF WORKS CH 540.000

ROAD 03

ROAD 18

Remove Barrier Kerb within the verge - CMB

Concrete Driveway to toe boundary of Lot 684 to 686 - CMB

687

CONCRETE DRIVEWAY CROSSOVER TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEAQ STD DRGs RS-049 & RS-050

PROVIDE BIN BAYS FOR LOTS 684 TO 686. PROVIDE 2 PER LOT, 1m x 1m PER BIN BAY

EXISTING DEVELOPMENT

LOT 1000 SP337426

EMT AW SP205797

EMT A RP103205

CABOOLTURE RIVER ROAD

LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- EXISTING STORMWATER STRUCTURE
- CONCRETE FOOTPATH (2m WIDE)
- ASPHALT SURFACING
- CONCRETE DRIVEWAY
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- EXISTING SURFACE CONTOUR (0.50m INTERVALS)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- EXISTING TRUNK SEWER
- K PROPOSED KERB PVC ADAPTER + LINE
- R PROPOSED ROOF WATER PVC LINE
- EXISTING WATER MAIN
- PROPOSED SLEEPER RETAINING WALL TYPE 1
- PROPOSED SLEEPER RETAINING WALL TYPE 2
- PROPOSED SLEEPER RETAINING WALL TYPE 3
- PROPOSED BOULDER RETAINING WALL
- PROPOSED RETAINING WALL + ACOUSTIC FENCE
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- INDICATIVE DRIVEWAY LOCATION B
- BUILD TO BOUNDARY
- BIN PADS

NOTE:
1. REFER TO DRG 22-000082_23_1313 FOR ROADWORKS NOTES.
2. REFER TO DRG 22-000082_23_1313 FOR TYPICAL LOT SERVICE CONNECTION LAYOUT

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK

DESIGN CHECK

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

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PROJECT: Lilywood LANDINGS — STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: ROADWORKS LAYOUT PLAN SHEET 1 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1310	B

Moreton Bay Regional Council

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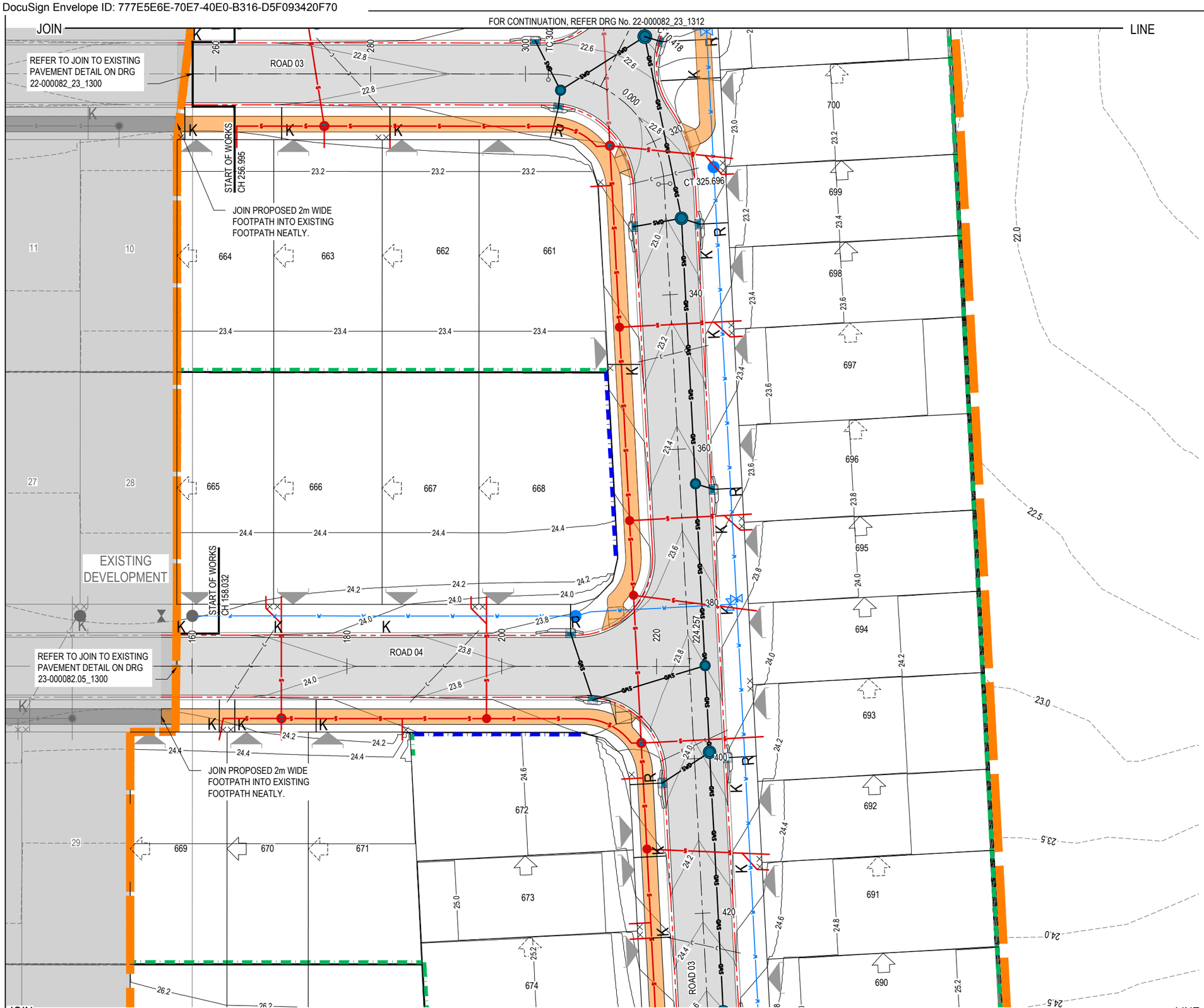
24/10/2023



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- EXISTING STORMWATER STRUCTURE
- CONCRETE FOOTPATH (2m WIDE)
- ASPHALT SURFACING
- CONCRETE DRIVEWAY
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- EXISTING SURFACE CONTOUR (0.50m INTERVALS)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- EXISTING TRUNK SEWER
- PROPOSED KERB PVC ADAPTER + LINE
- PROPOSED ROOF WATER PVC LINE
- EXISTING WATER MAIN
- PROPOSED SLEEPER RETAINING WALL TYPE 1
- PROPOSED SLEEPER RETAINING WALL TYPE 2
- PROPOSED SLEEPER RETAINING WALL TYPE 3
- PROPOSED BOULDER RETAINING WALL
- PROPOSED RETAINING WALL + ACOUSTIC FENCE
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- INDICATIVE DRIVEWAY LOCATION B
- BUILD TO BOUNDARY
- BIN PADS

NOTE:

1. REFER TO DRG 22-000082_23_1313 FOR ROADWORKS NOTES.
2. REFER TO DRG 22-000082_23_1313 FOR TYPICAL LOT SERVICE CONNECTION LAYOUT

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS — STAGE 23

DISCLAIMER
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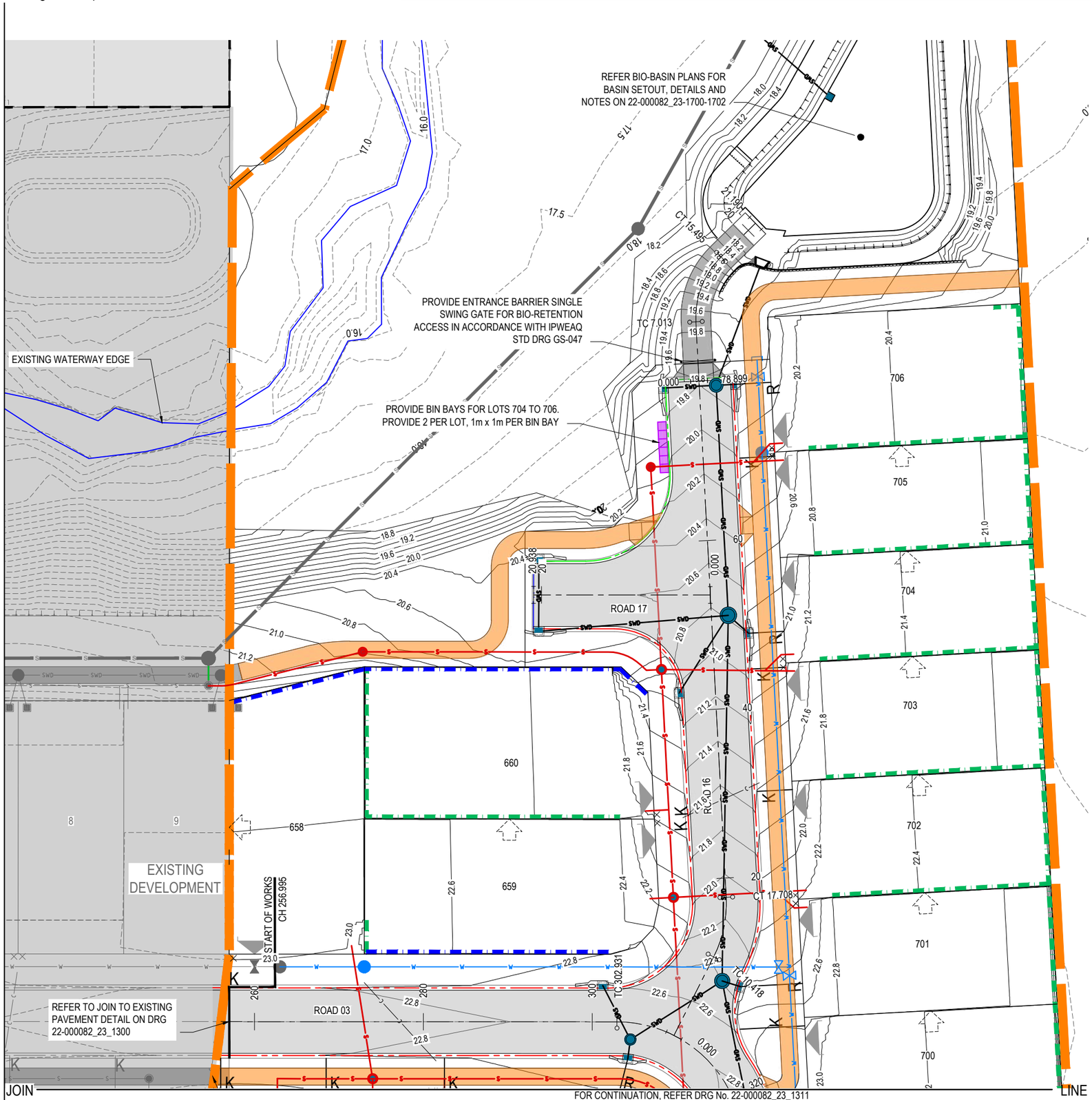
DRAWING TITLE: ROADWORKS LAYOUT PLAN SHEET 2 OF 3

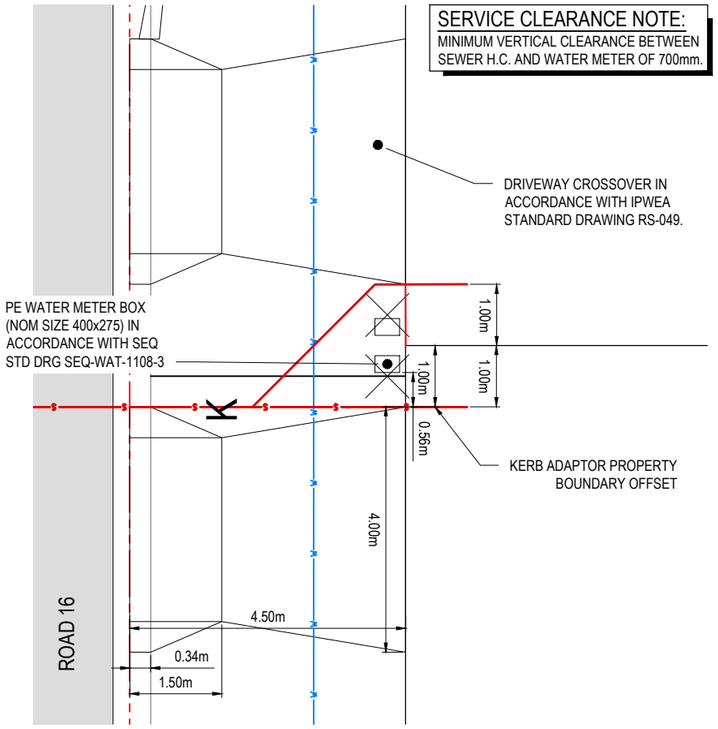
PROJECT No.	DRAWING No.	REVISION
22-000082_23	1311	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023





TYPICAL DRIVEWAY AND LOT SERVICE CONNECTION LAYOUT

SCALE 1:50 (A1)

NOTE:

1. REFER TO DRG 22-000082_23_1311 FOR ROADWORKS LEGEND

ROADWORKS NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT MORETON BAY REGIONAL COUNCIL STANDARD DRAWINGS AND METHODS.
2. NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE CROSS SECTIONS, THE ACTUAL LIMITS SHALL BE DETERMINED ON-SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION.
3. LEVELS FOR KERB AND CHANNELING CONSTRUCTION ARE AT EQUAL INTERVALS AT LIP OF CHANNEL UNLESS SHOWN OTHERWISE.
4. SIDE DRAINS TO BE CONSTRUCTED UNDER ALL KERBS AND ALL KERB AND CHANNEL AND IN LOCATIONS DIRECTED BY THE SUPERINTENDENT IN ACCORDANCE WITH MORETON BAY REGIONAL COUNCIL STANDARDS.
5. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SATISFACTORY CONNECTION AND THE CONTRACTOR SHALL INCLUDE THE COST OF THIS WORK IN THE TENDER PRICE. WHERE NEW WORK JOINS EXISTING, THE WORK SHALL TRANSITION NEATLY WITH THE PAVEMENT SO THAT DEVIATION FROM THE LINE OF A 3.0m STRAIGHT EDGE SHALL BE NO GREATER THAN 10mm.
6. SUBGRADE TEST RESULTS TO BE FORWARDED TO SUPERINTENDENT. FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION, TESTS SHALL INCLUDE SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT.
7. CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
8. FOOTPATHS AND BATTERS TO HAVE MINIMUM OF 75mm TOPSOIL (AND GRASSING IF ORDERED).
9. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF DEMOLISHING ANY EXISTING STRUCTURES WITHIN THE SITE AREAS.
10. WORKS SHALL BE PROGRAMMED SO AS NOT TO DISTURB NEARBY HOUSEHOLDERS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES.
11. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
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B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

Ryan Ashworth

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 1:500 5 0 5 10m A1 A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

egis

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PROJECT: Lilywood LANDINGS

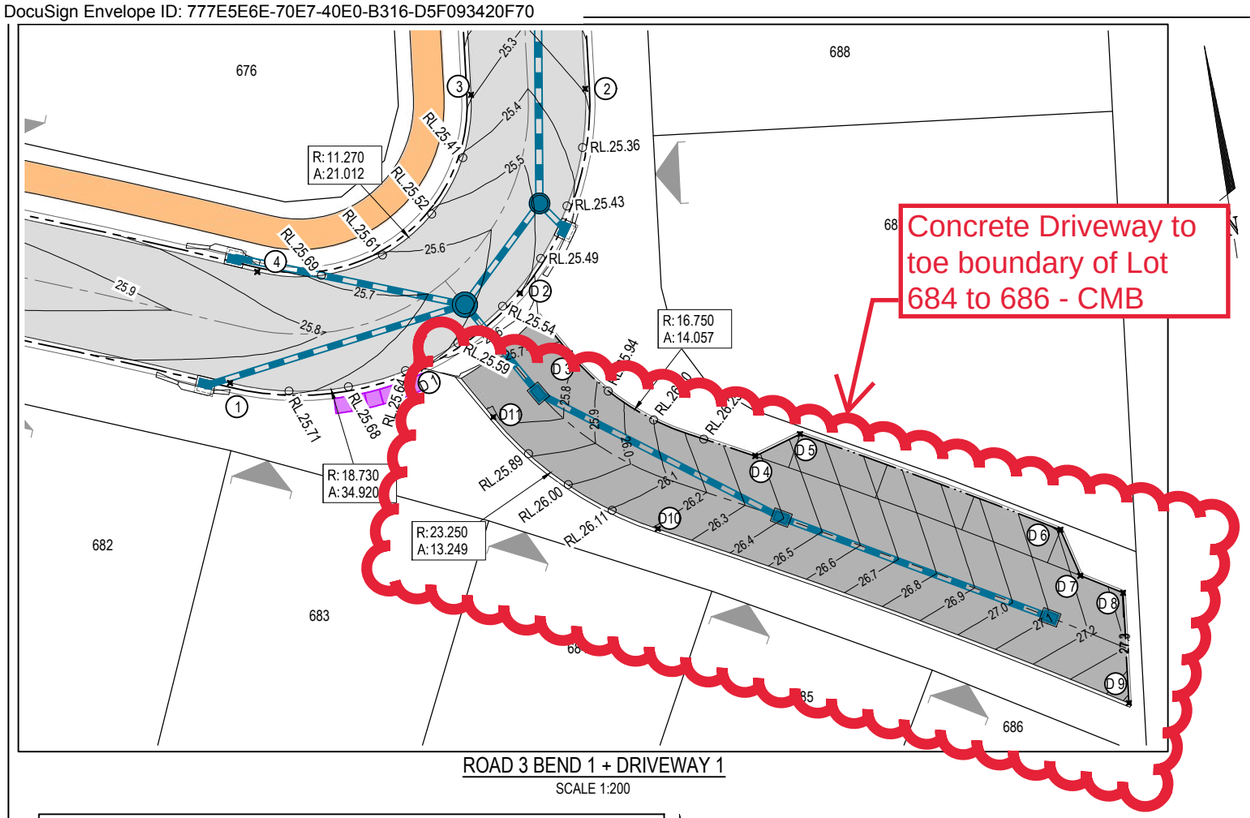
STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: ROADWORKS LAYOUT PLAN SHEET 3 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1312	B

Moreton Bay Regional Council



ROAD 3 BEND 1 + DRIVEWAY 1
SCALE 1:200

ROAD 3 BEND 1 SETOUT

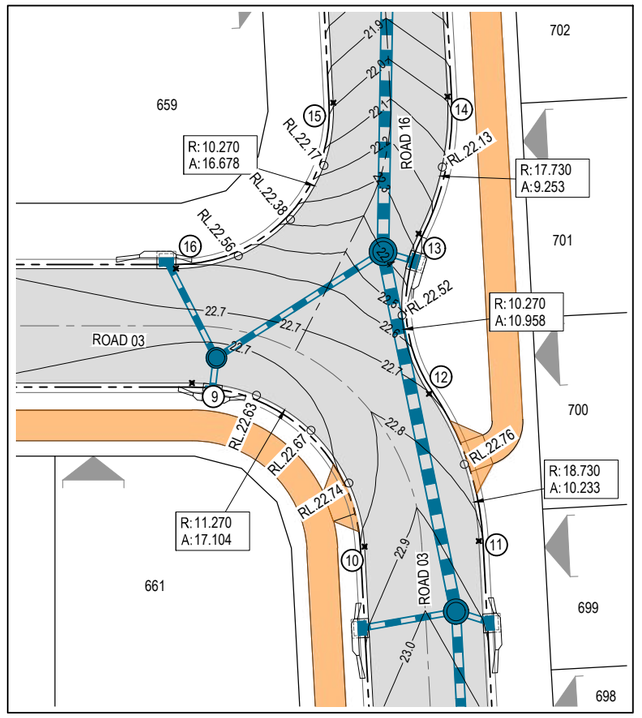
POINT ID	EASTING	NORTHING	LEVEL
1	91095.674	501966.928	25.747
2	91121.540	501982.278	25.293
3	91114.120	501983.045	25.293
4	91098.556	501973.809	25.747

DRIVEWAY 1 SETOUT

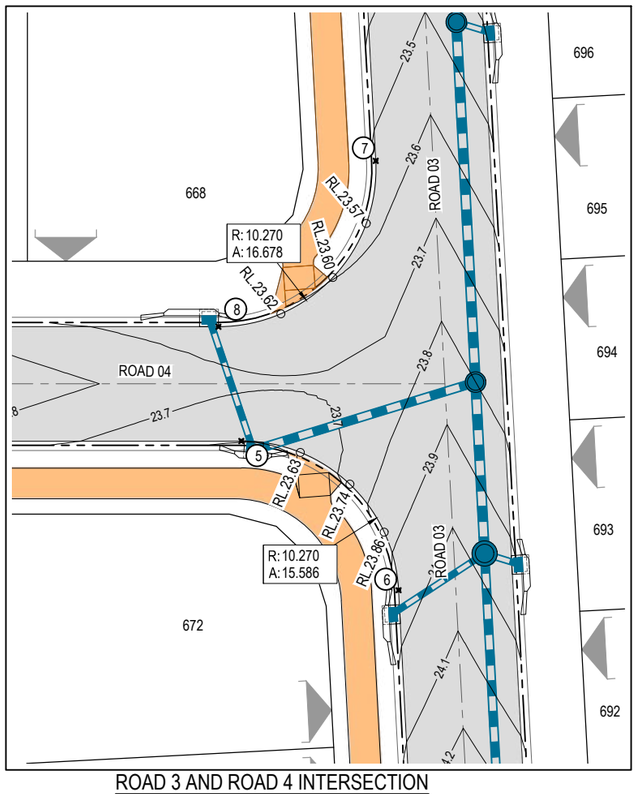
POINT ID	EASTING	NORTHING	LEVEL
D 1	91108.224	501965.958	25.606
D 2	91115.262	501969.767	25.503
D 3	91117.865	501965.381	25.824
D 4	91128.765	501956.896	26.382
D 5	91131.877	501957.859	26.686
D 6	91147.687	501949.048	27.356
D 7	91148.504	501945.895	27.228
D 8	91151.078	501944.354	27.332
D 9	91150.338	501937.193	27.537
D10	91121.748	501953.197	26.211
D11	91112.275	501962.064	25.824

ROAD 3 & 16 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
9	91118.637	502130.480	22.620
10	91128.094	502118.188	22.823
11	91135.512	502117.393	22.824
12	91133.804	502127.381	22.703
13	91134.757	502137.801	22.267
14	91138.002	502146.333	21.990
15	91130.581	502147.100	21.990
16	91118.768	502138.012	22.623



ROAD 3 AND ROAD 16 INTERSECTION
SCALE 1:200



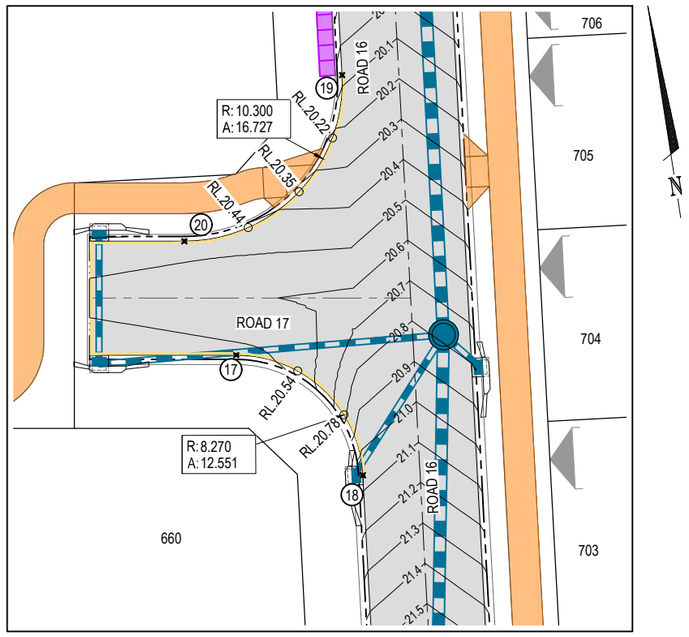
ROAD 3 AND ROAD 4 INTERSECTION
SCALE 1:200

ROAD 16 & 17 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
17	91126.156	502180.438	20.474
18	91133.096	502171.418	21.063
19	91135.813	502197.406	20.072
20	91123.968	502188.304	20.458

ROAD 3 & 4 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
5	91111.694	502054.131	23.605
6	91120.312	502042.930	23.946
7	91123.196	502070.821	23.530
8	91111.383	502061.732	23.652



ROAD 17 AND ROAD 16 INTERSECTION
SCALE 1:200

LEGEND

- WORKS BOUNDARY
- NO PARKING LINE
- CONTROL LINE
- 66.0 — DESIGN SURFACE CONTOUR (0.1m INTERVALS)
- RL.59.651 × — KERB INTERMEDIATE LEVEL
- (10) — KERB SETOUT POINT
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- INDICATIVE DRIVEWAY LOCATIONS

NOTE

KERB SETOUT IS TO LIP OF KERB AND CHANNEL.
LEVEL ARE SHOWN TO LIP OF KERB AND CHANNEL.
KERB LEVELS SHOWN AT EQUAL INTERVALS, U.N.O.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:200 2 0 2 4 6 8 10m A1; 1:400 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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DRAWING TITLE: INTERSECTION DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1320	B

Moreton Bay Regional Council

JOIN

FOR CONTINUATION, REFER DRG No. 22-000082_23_1331

LINE

N

LEGEND

- WORKS BOUNDARY
- NO PARKING LINE
- CONTROL LINE
- BOLLARDS
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY

NOTE:
ALL LINEMARKING AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

NOTE:
(*) STREET NAME TO BE CONFIRMED WITH SUPERINTENDENT PRIOR TO PURCHASING OF STREET SIGNS.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

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PROJECT: Lilywood LANDINGS — STAGE 23

DISCLAIMER
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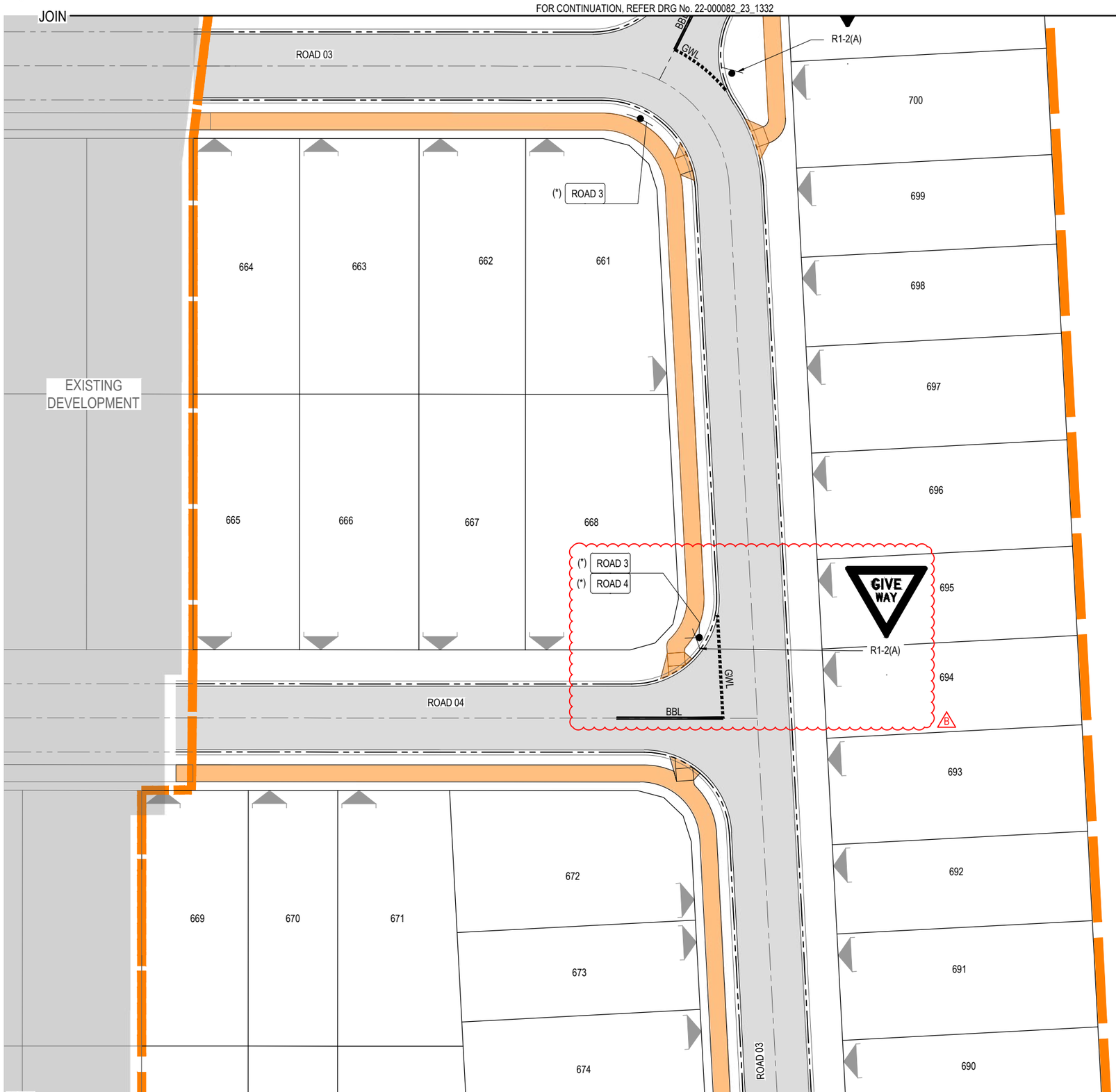
DRAWING TITLE: SIGNS AND LINEMARKING PLAN SHEET 1 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1330	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



LEGEND

- WORKS BOUNDARY
- NO PARKING LINE
- CONTROL LINE
- BOLLARDS
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY

N

NOTE:
ALL LINEMARKING AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

NOTE:
(*) STREET NAME TO BE CONFIRMED WITH SUPERINTENDENT PRIOR TO PURCHASING OF STREET SIGNS.

PAVEMENT MARKINGS	LENGTH(m)	GAP(m)	WIDTH(mm)
GIVE WAY LINE (GWL)	0.6	0.6	300
BARRIER LINE (BOTH DIRECTIONS) (BBL)	-	-	80

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

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PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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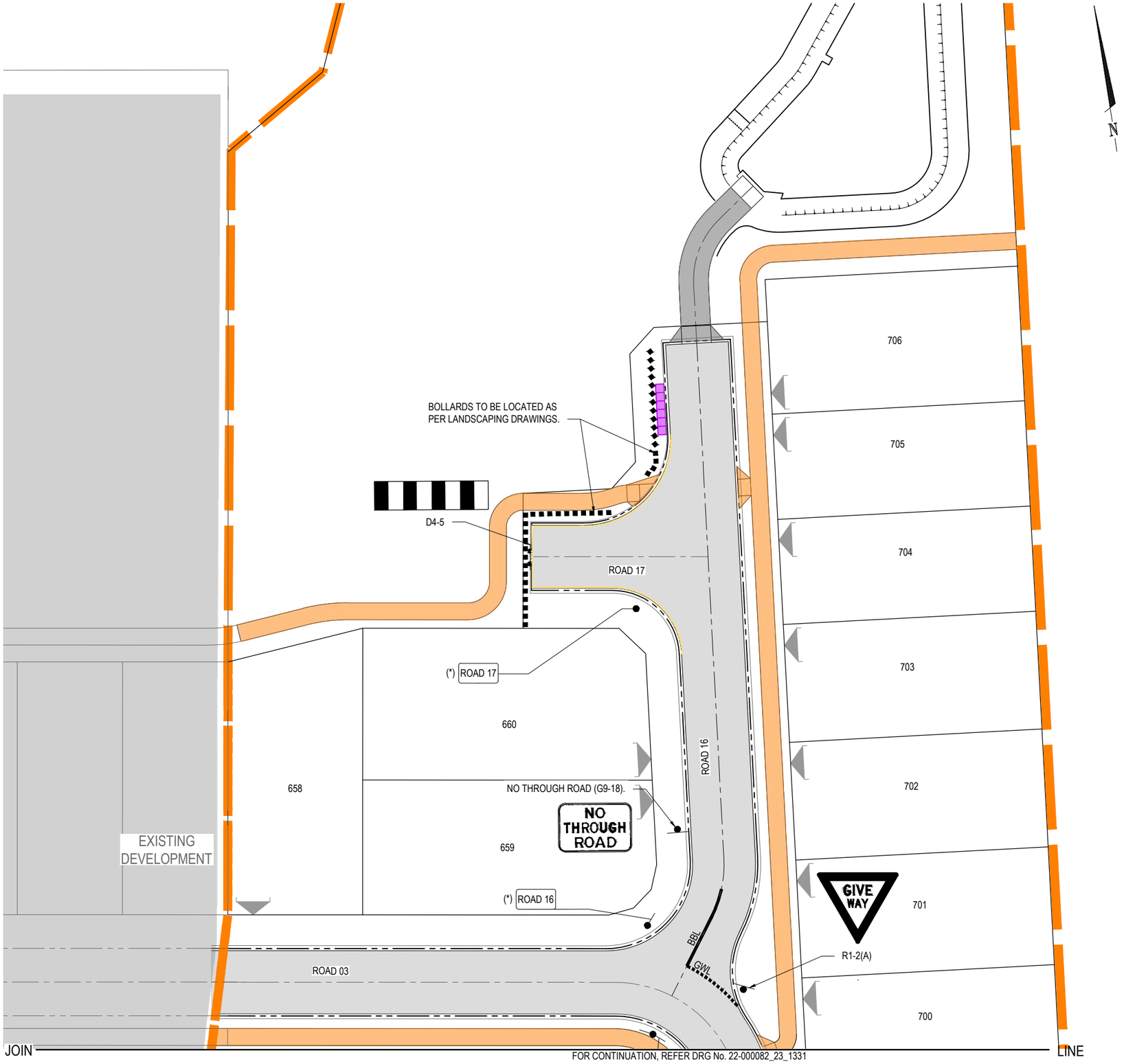
DRAWING TITLE: SIGNS AND LINEMARKING PLAN SHEET 2 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1331	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



LEGEND

- WORKS BOUNDARY
- NO PARKING LINE
- CONTROL LINE
- BOLLARDS
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY

NOTE:
ALL LINEMARKING AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

NOTE:
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PAVEMENT MARKINGS	LENGTH(m)	GAP(m)	WIDTH(mm)
GIVE WAY LINE (GWL)	0.6	0.6	300
BARRIER LINE (BOTH DIRECTIONS) (BBL)	-	-	80

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED
RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:250 5 0 5 10m A1
1:500 A3

CLIENT
FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT
Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE
SIGNS AND LINEMARKING PLAN SHEET 3 OF 3

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1332	B

Moreton Bay Regional Council

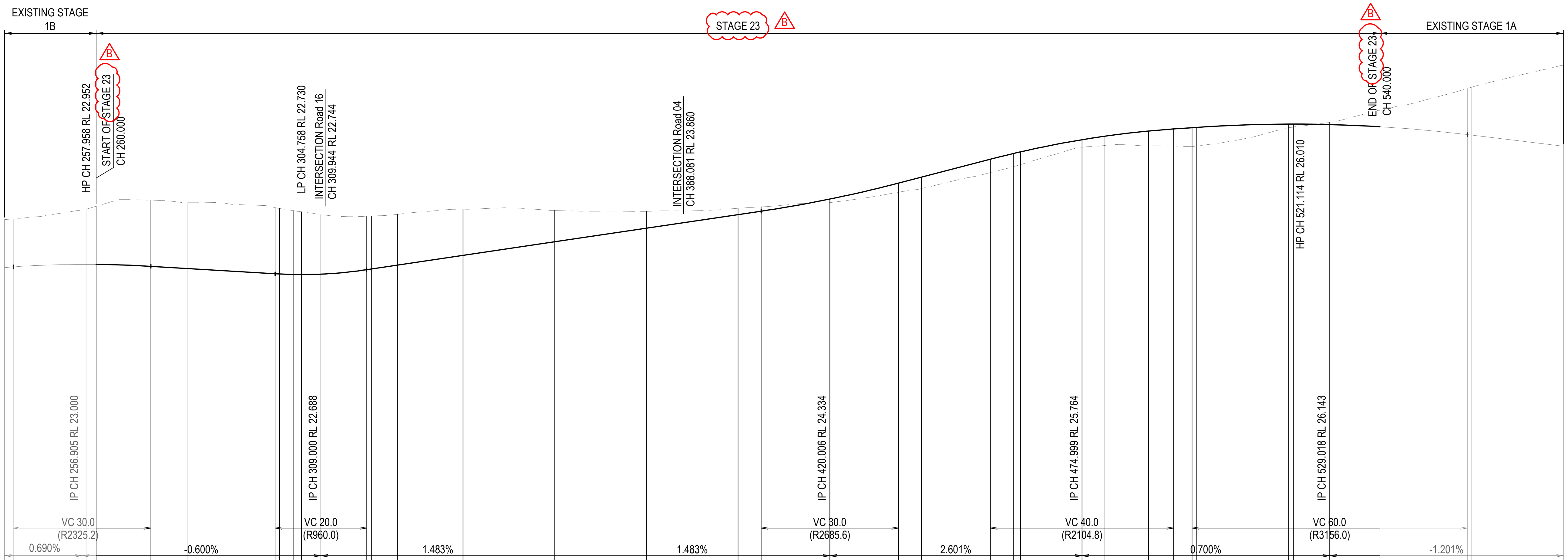
NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

PRELIMINARY ROAD 3 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 3	3 *	1.2×10^5	LIVING RESIDENTIAL	25 BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR



DATUM RL 16.0

CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
240.000	-1.045	22.771	22.771	22.883	23.928
241.905	-1.049	22.785	22.785	22.896	23.945
256.905	-1.185	22.840	22.840	22.952	24.137
257.958	-1.209	22.840	22.840	22.952	24.161
260.000	-1.270	22.839	22.839	22.951	24.221
271.905	-1.442	22.798	22.798	22.910	24.352
280.000	-1.436	22.750	22.750	22.861	24.297
299.000	-1.442	22.636	22.636	22.748	24.189
300.000	-1.430	22.630	22.630	22.742	24.172
302.931	-1.391	22.620	22.620	22.732	24.123
304.758	-1.366	22.618	22.618	22.730	24.096
309.000	-1.299	⊛	⊛	22.740	24.039
319.000	-1.168	⊛	⊛	22.836	24.004
320.000	-1.155	22.739	22.739	22.851	24.006
325.696	-1.106	22.823	22.823	22.935	24.042
340.000	-1.007	23.036	23.036	23.147	24.155
360.000	-0.683	23.332	23.332	23.444	24.127
380.000	-0.367	23.629	23.629	23.741	24.108
400.000	-0.138	⊛	⊛	24.037	24.175
405.006	-0.094	24.000	24.000	24.112	24.206
420.000	0.079	24.264	24.264	24.376	24.297
420.006	0.079	24.264	24.264	24.376	24.297
435.006	0.197	24.612	24.612	24.724	24.527
440.000	0.248	24.742	24.742	24.854	24.606
454.999	0.292	25.132	25.132	25.244	24.953
460.000	0.288	25.256	25.256	25.368	25.080
461.560	0.277	25.293	25.293	25.405	25.128
474.999	0.161	25.557	25.557	25.669	25.508
480.000	0.199	25.634	25.634	25.746	25.547
489.526	0.328	25.747	25.747	25.859	25.531
494.999	0.373	25.793	25.793	25.904	25.531
499.018	0.411	25.821	25.821	25.933	25.522
500.000	0.405	25.827	25.827	25.939	25.534
520.000	0.080	25.898	25.898	26.010	25.930
521.114	0.223	25.898	25.898	26.010	25.947
529.018	-0.045	25.888	25.888	26.000	26.045
540.000	-0.359	25.842	25.842	25.953	26.313
559.018	-1.004	25.670	25.670	25.782	26.787
560.000	-1.045	25.659	25.659	25.771	26.816
580.000	-1.770	25.418	25.418	25.530	27.300

HORIZONTAL CURVES: R15.000; R15.000; R-408.000

ROAD 03 - LONGITUDINAL SECTION

HORIZ SCALE: 500
VERTICAL SCALE: 50

⊛ REFER INTERSECTION DETAILS FOR LEVELS

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:500 1:1000 — 10 5 0 10 20m A1 A3 — HORIZONTAL
1:50 1:100 — 1 0.5 0 1 2m A1 A3 — VERTICAL

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

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PROJECT: Lilywood LANDINGS
STAGE 23

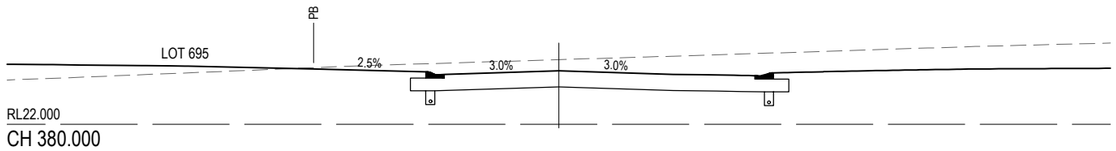
DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

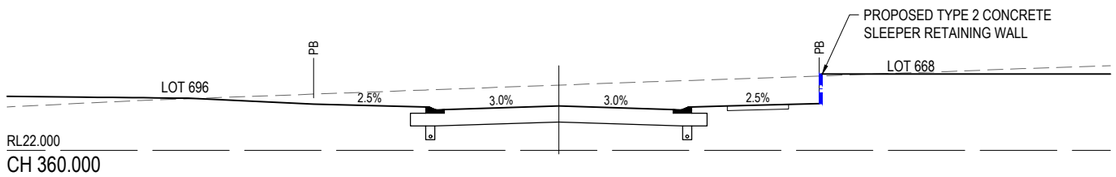
DRAWING TITLE: ROAD 3 LONGITUDINAL SECTION

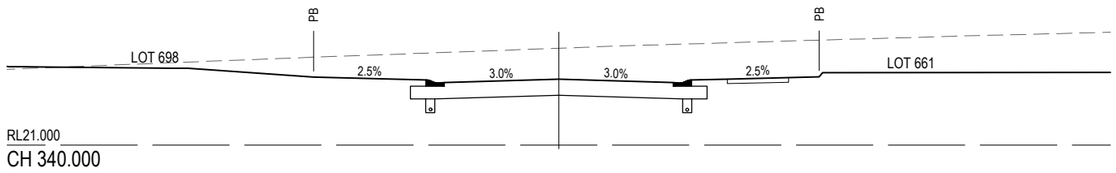
PROJECT No.	DRAWING No.	REVISION
22-000082_23	1340	B

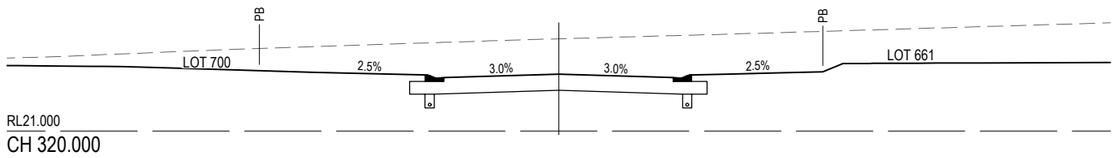
Moreton Bay Regional Council

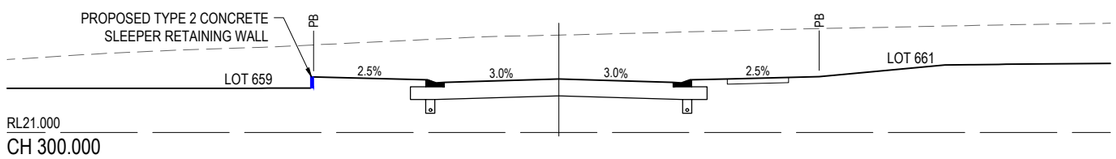
Approved Subject to Conditions of Decision Notice DA/2023/3497 24/10/2023

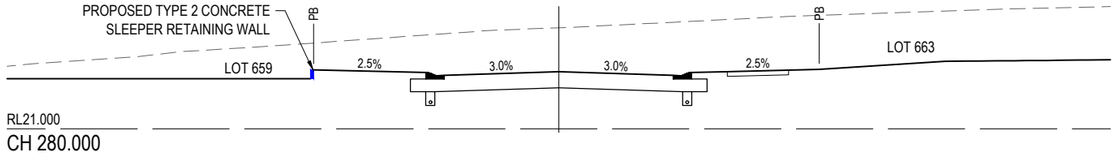


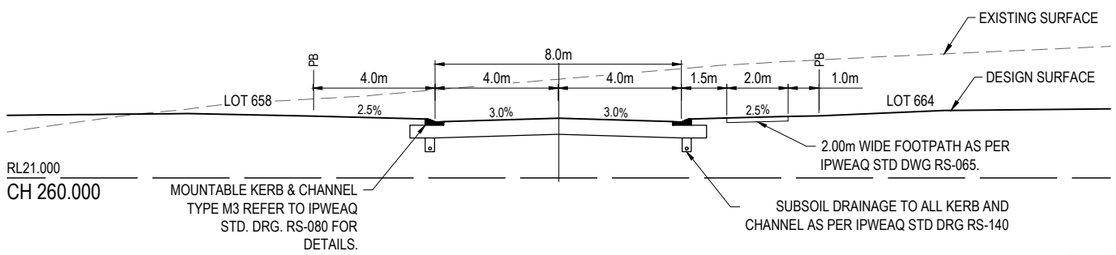


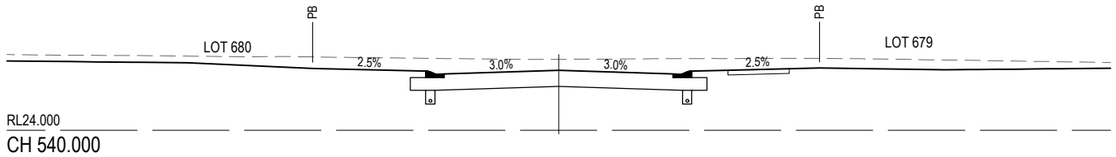


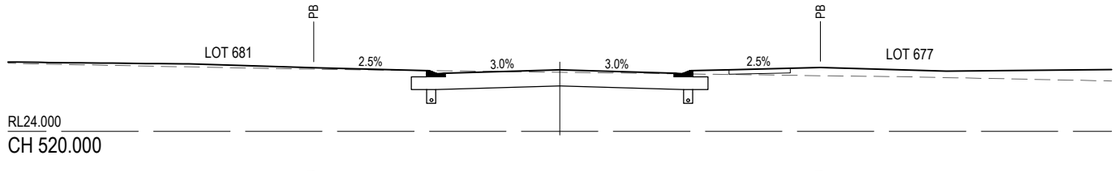


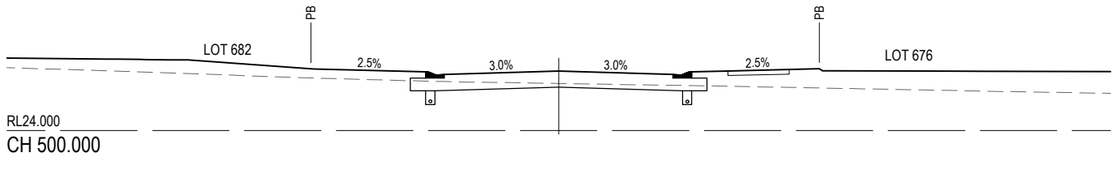


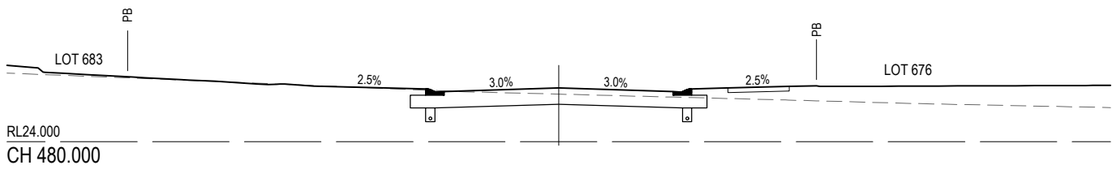


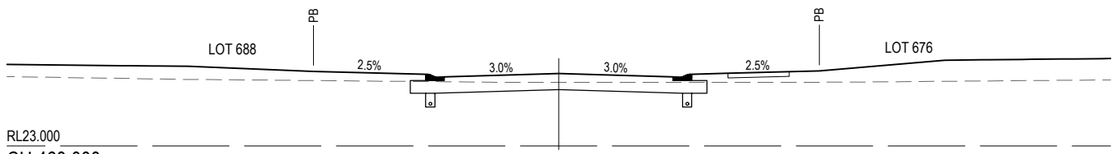


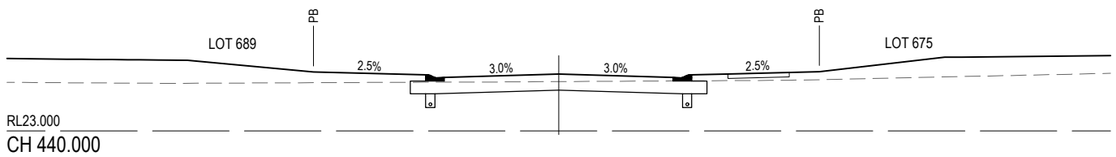


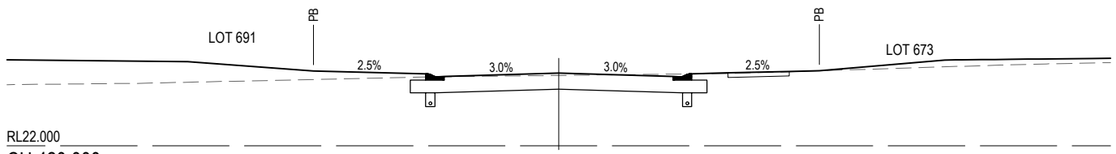


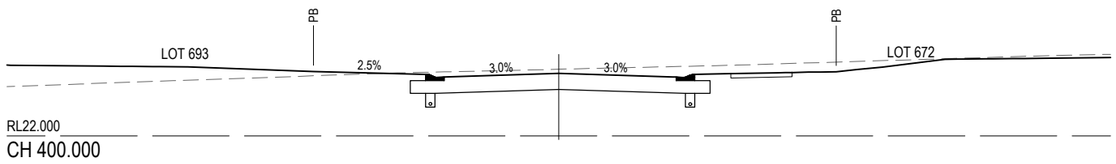












ROAD 03 - CROSS SECTIONS

SCALE 1:100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

Ryan Ashworth

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:100 / 1:200 — 1 0 1 2 3 4 5m — A1 / A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

www.egis-group.com

PROJECT: Lilywood LANDINGS

STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: ROAD 3 CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1341	B

Moreton Bay Regional Council

24/10/2023

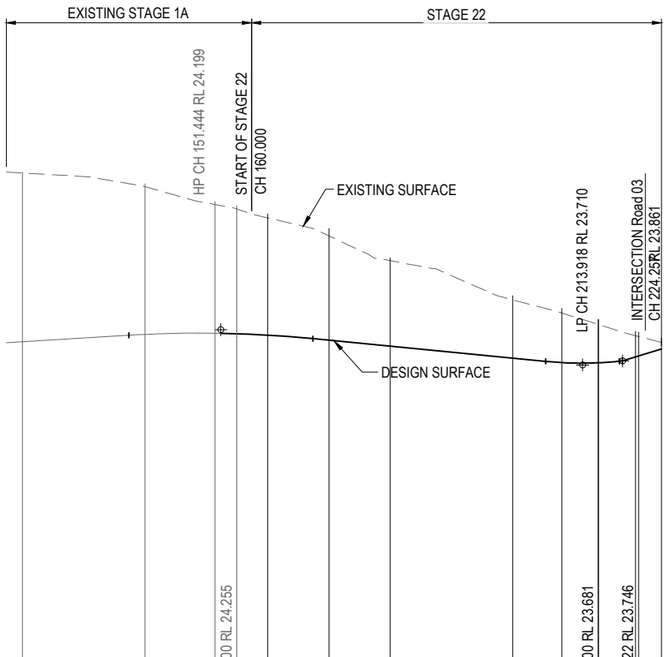
NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

PRELIMINARY ROAD 4 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 4	3 *	1.2 X 10^5	LIVING RESIDENTIAL	25 BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR



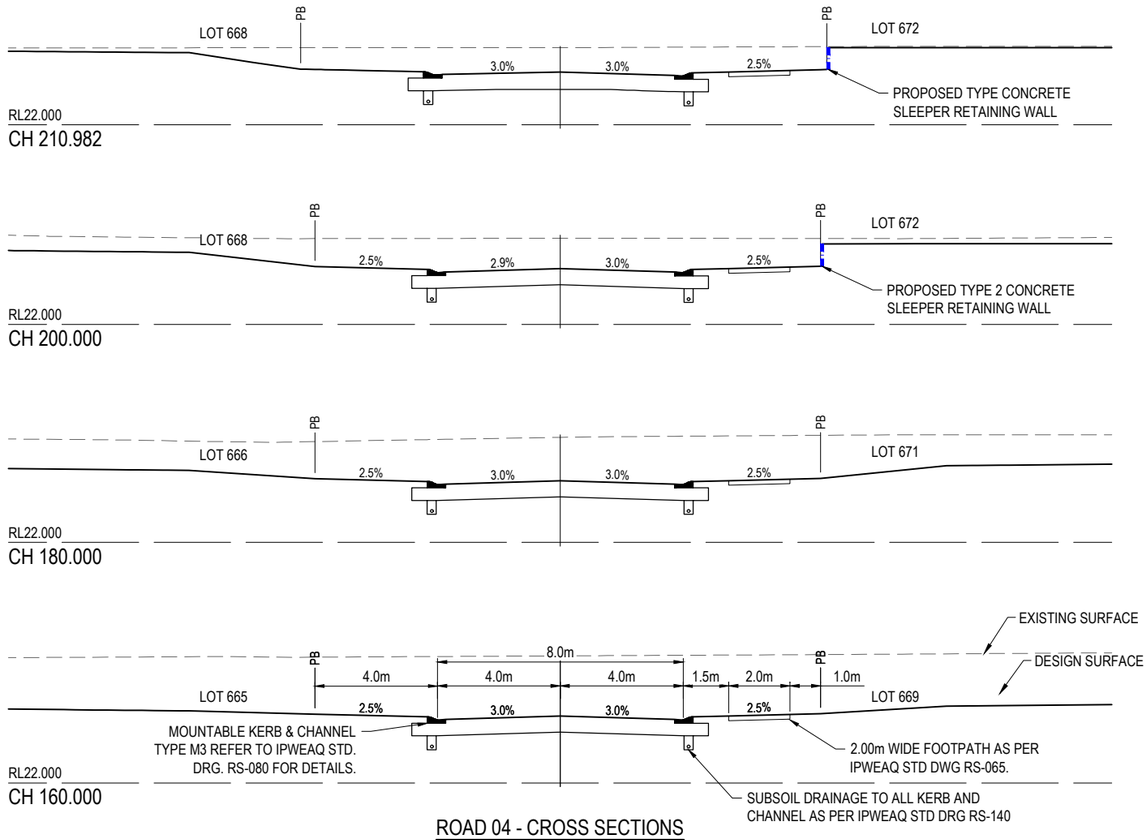
DATUM RL 16.0

CUT (-) / FILL	-2.780	-2.470	-2.144	-2.082	-1.963	-1.798	-1.414	-0.994	-0.861	-0.714	-0.711	-0.489	-0.469	-0.255
LHS LIP LEVEL	23.933	24.053	24.087	24.084	24.228	23.997	23.899	23.707	23.659					
RHS LIP LEVEL	23.933	24.053	24.087	24.084	24.228	23.997	23.899	23.705	23.627					
DESIGN SURFACE	24.045	24.165	24.199	24.196	24.180	24.109	24.011	23.817	23.739	23.710	23.710	23.741	23.746	23.860
EXISTING SURFACE	26.824	26.635	26.343	26.277	26.143	25.906	25.426	24.810	24.600	24.424	24.421	24.230	24.215	24.116
CHAINAGES	120.000	140.000	151.444	155.000	160.000	170.000	180.000	200.000	208.000	213.918	214.000	220.000	220.522	224.257
HORIZONTAL CURVES														

ROAD 04 - LONGITUDINAL SECTION

HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS



ROAD 04 - CROSS SECTIONS

SCALE 1:100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:500 1:1000 HORIZONTAL 10 5 0 10 20m A1 A3
1:50 1:100 VERTICAL 1 0.5 0 1 2m A1 A3
1:100 1:200 VERTICAL 1 0 1 2 3 4 5m A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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DRAWING TITLE: ROAD 4 LONGITUDINAL AND CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1342	B

Moreton Bay Regional Council

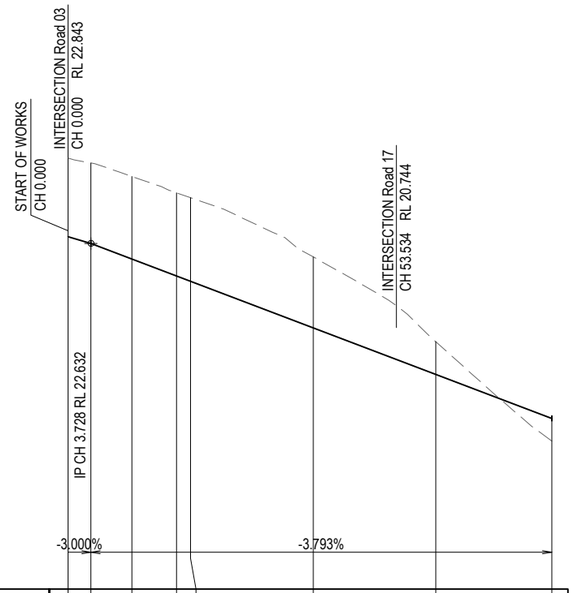
NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

PRELIMINARY ROAD 16 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 16	3 *	1.2 X 10^5	LIVING RESIDENTIAL	25 BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR

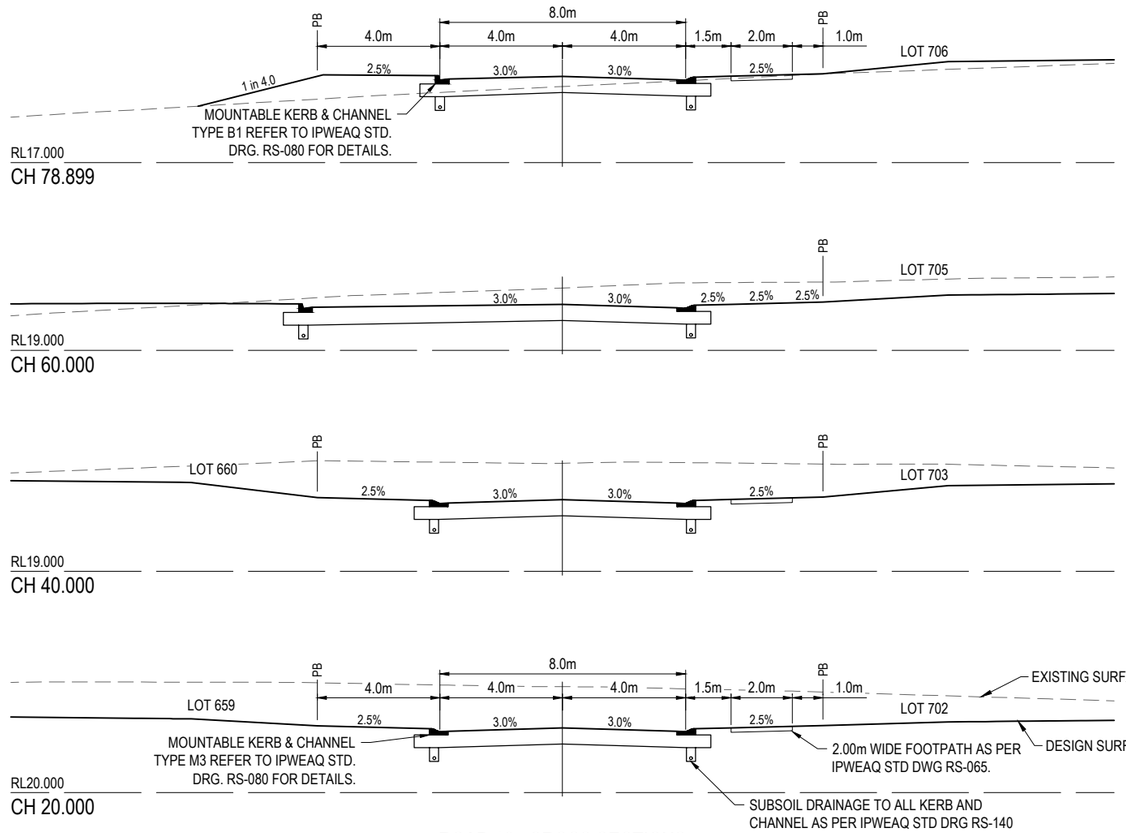


CUT (-) / FILL	-1.282	-1.314	-1.347	-1.356	-1.364	-1.158	-0.534	0.367
LHS LIP LEVEL				21.990	21.903	21.145		
RHS LIP LEVEL				21.990	21.903	21.145		
DESIGN SURFACE	22.744	22.632	22.379	22.102	22.015	21.256	20.498	19.781
EXISTING SURFACE	24.026	23.947	23.725	23.458	23.379	22.414	21.032	19.414
CHAINAGES	0.000	3.728	10.418	17.708	20.000	40.000	60.000	78.899
HORIZONTAL CURVES		R-14.000						

ROAD 16 - LONGITUDINAL SECTION

HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS



ROAD 16 - CROSS SECTIONS

SCALE 1:100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:500 1:1000 HORIZONTAL 10 5 0 10 20m A1 A3
1:50 1:100 VERTICAL 1 0.5 0 1 2m A1 A3
1:100 1:200 1 0 1 2 3 4 5m A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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DRAWING TITLE: ROAD 16 LONGITUDINAL AND CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1343	B

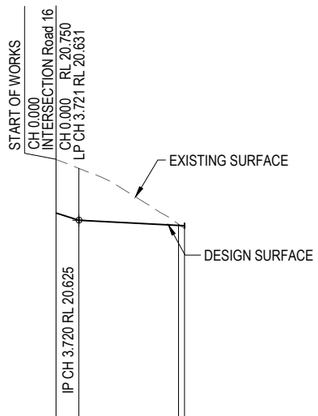
NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

PRELIMINARY ROAD 17 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 17	3 *	1.2 X 10^5	LIVING RESIDENTIAL	25 BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR



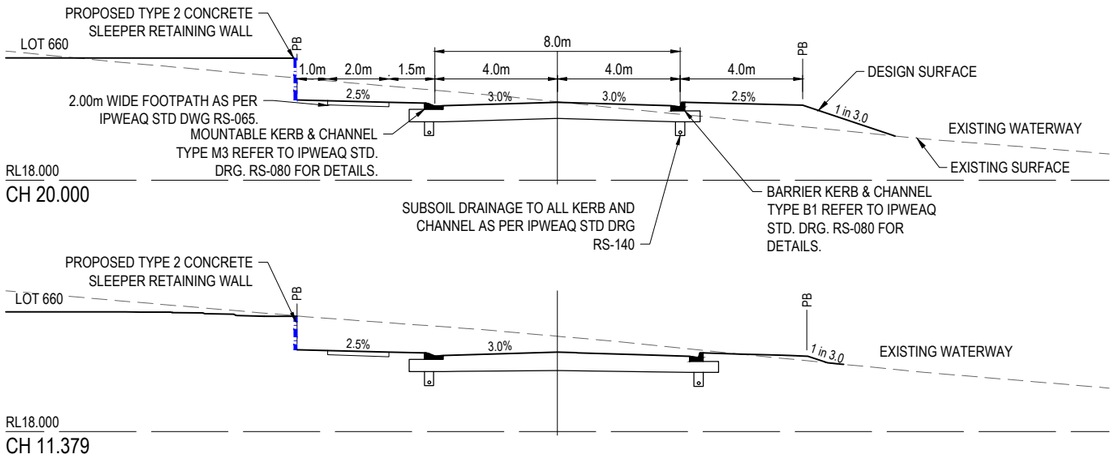
DATUM RL 16.0

CUT (-) / FILL	-0.875	-0.849		-0.017	0.049			
LHS LIP LEVEL				20.431				
RHS LIP LEVEL				20.432				
DESIGN SURFACE	20.744	20.625		20.543	20.539			
EXISTING SURFACE	21.619	21.474		20.560	20.490			
CHAINAGES	0.000	3.720		20.000	20.938			
HORIZONTAL CURVES								

ROAD 17 - LONGITUDINAL SECTION

HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS



ROAD 17 - CROSS SECTIONS

SCALE 1:100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:500 1:1000 HORIZONTAL 10 5 0 10 20m A1 A3
1:50 1:100 VERTICAL 1 0.5 0 1 2m A1 A3
1:100 1:200 1 0 1 2 3 4 5m A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: ROAD 17 LONGITUDINAL AND CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1344	B

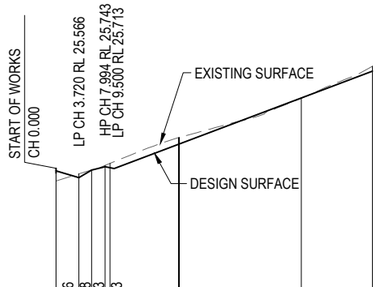
Moreton Bay Regional Council

PAVEMENT NOTE:

1. DRIVEWAY TO BE 175mm THICK N32 CONCRETE WITH SL92 MESH ON 150mm BASE TYPE 2.1. FINISH PER LANDSCAPE SPECIFICATION.

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

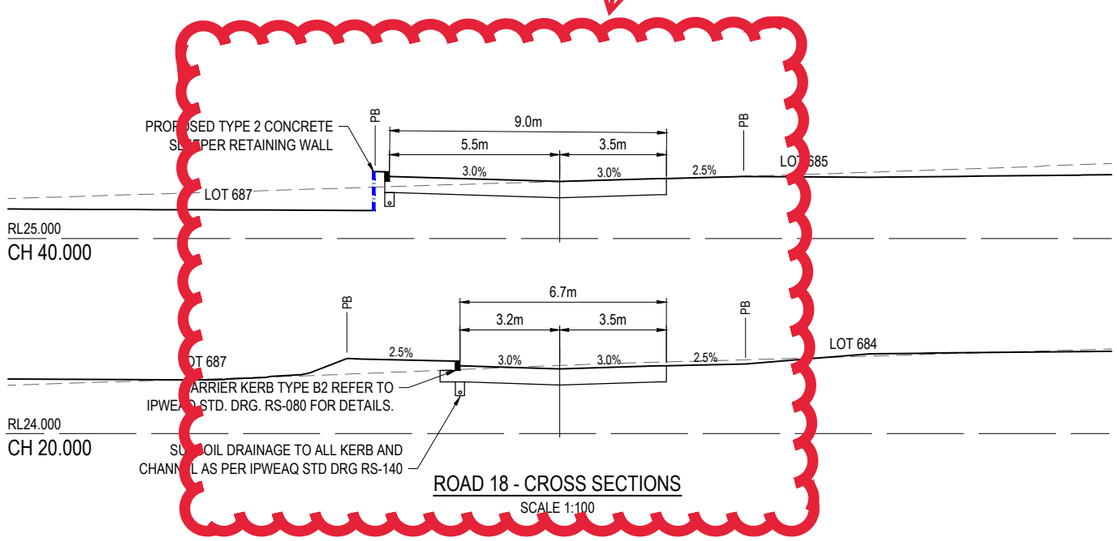


CUT (-) / FILL	0.165	-0.220	-0.002	-0.023	-0.073	-0.115	-0.111	-0.109	0.003	-0.081	
LHS LIP LEVEL					25.824	25.810	26.206	26.211	27.029		
RHS LIP LEVEL					25.824	25.810	26.206	26.211	26.960		
DESIGN SURFACE	25.678	25.566	25.688	25.743	25.727	25.713	26.109	26.113	26.863	27.300	
EXISTING SURFACE	25.513	25.626	25.690	25.766	25.799	25.827	26.219	26.223	26.860	27.381	
CHAINAGES	0.000	3.720	5.793	7.994	8.813	9.500	20.000	20.125	40.000	51.602	
HORIZONTAL CURVES					R-20.000				R406.100		

ROAD 18 - LONGITUDINAL SECTION
HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS

Concrete Driveway to toe boundary of Lot 684 to 686 - CMB



REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:500 1:1000 HORIZONTAL 10 5 0 10 20m A1 A3
1:50 1:100 VERTICAL 1 0.5 0 1 2m A1 A3
1:100 1:200 1 0 1 2 3 4 5m A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

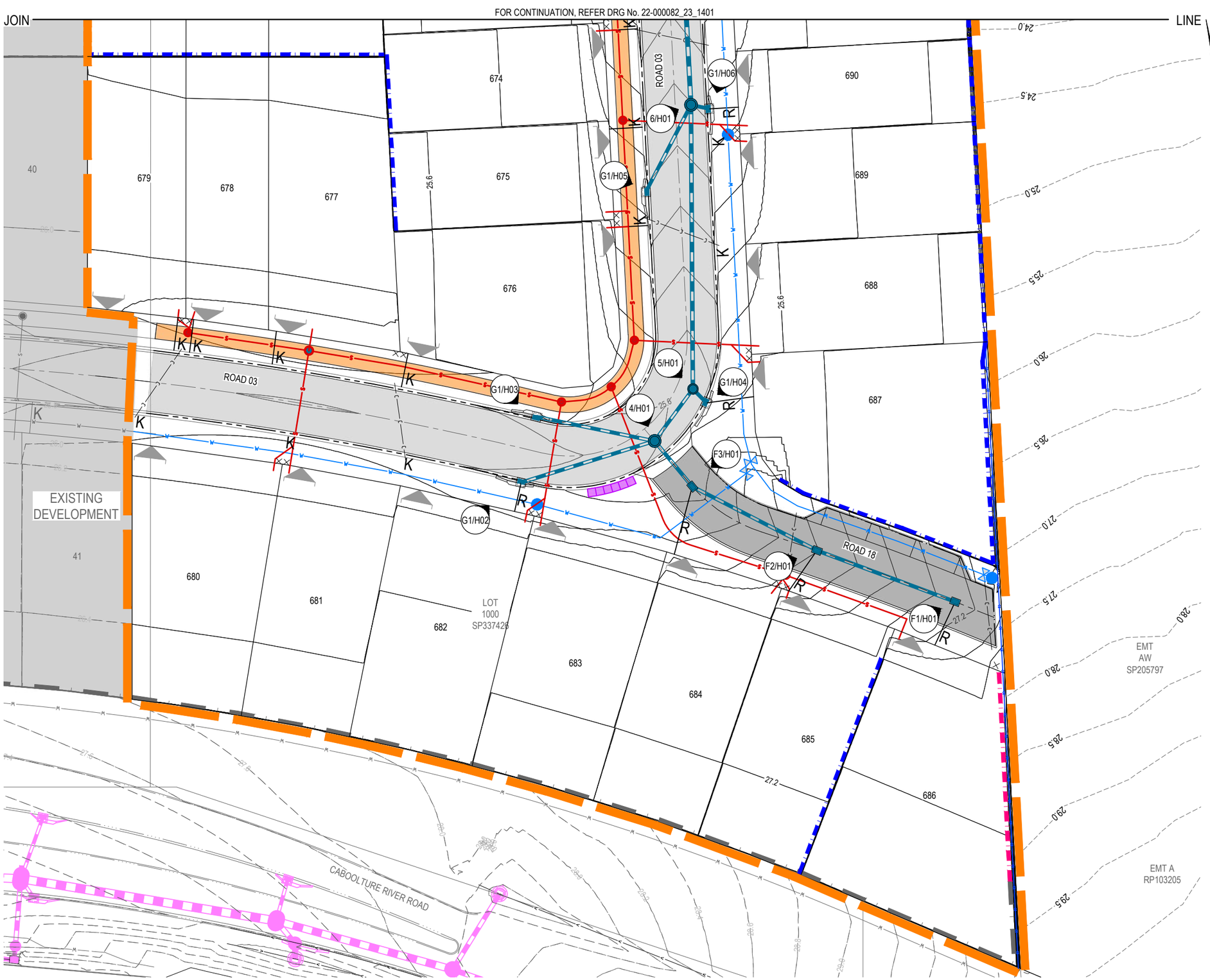
DRAWING TITLE: ROAD 18 LONGITUDINAL AND CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1345	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- 64.0 EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- K PROPOSED KERB ADAPTER + LINE
- R PROPOSED ROOF WATER LINE
- PROPOSED BATTERS
- CONCRETE FOOTPATH
- INDICATIVE DRIVEWAY LOCATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL
- ST EXISTING TRUNK SEWER
- BUILD TO BOUNDARY

NOTE:

1. REFER TO DRG 22-000082_23_1405 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRGs 22-000082_23_1410-1413 FOR STORMWATER CATCHMENT PLANS.
3. REFER TO DRGs 22-000082_23_1420-1423 FOR STORMWATER LONGITUDINAL SECTIONS.
4. REFER TO DRGs 22-000082_23_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN
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CAUTION !! OVERHEAD ELECTRICAL CABLES
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DESIGN CHECK: MH

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APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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PROJECT: Lilywood LANDINGS
STAGE 23

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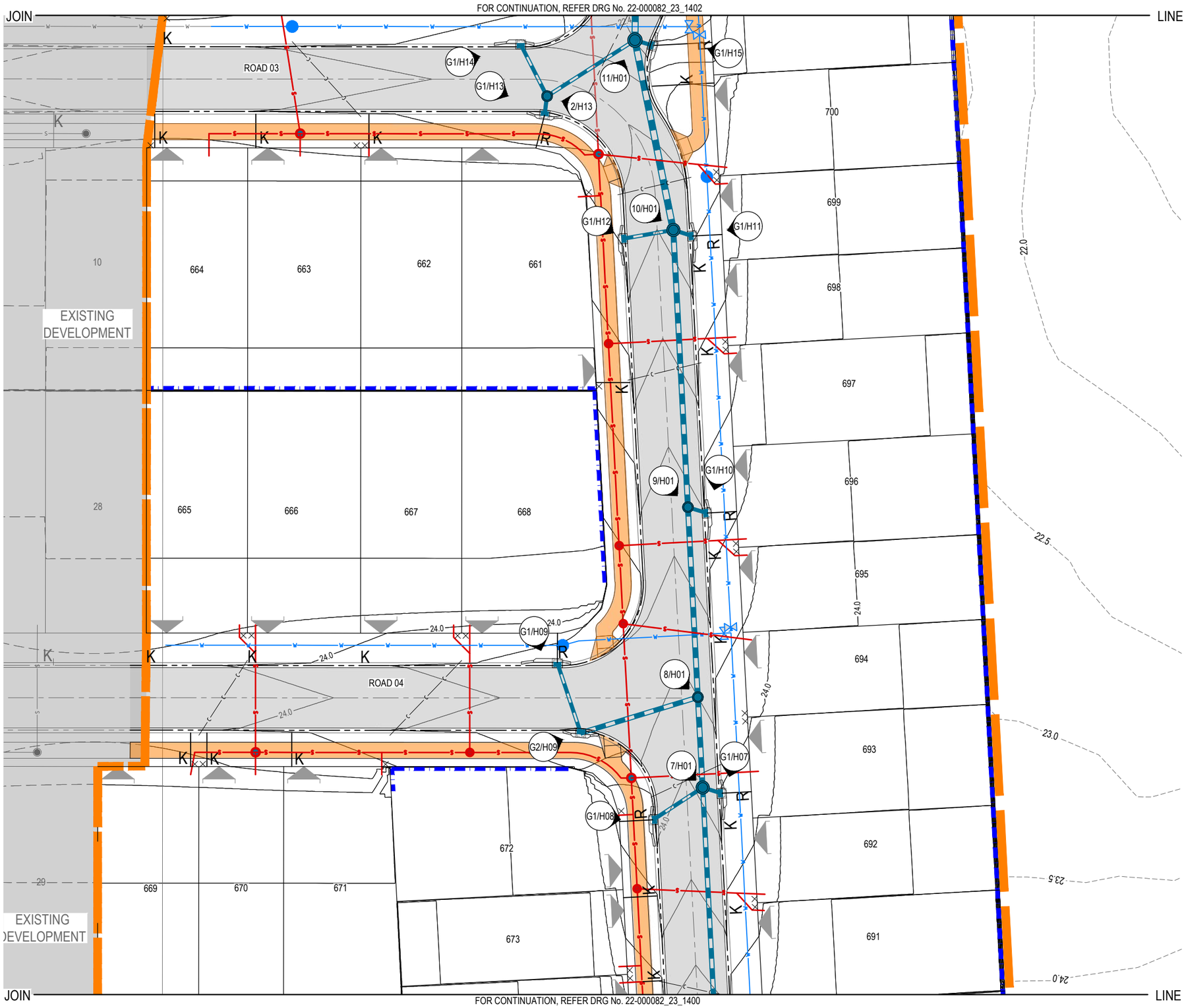
DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 1 OF 4

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1400	B

Moreton Bay Regional Council



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- PROPOSED KERB ADAPTER + LINE
- PROPOSED ROOF WATER LINE
- PROPOSED BATTERS
- CONCRETE FOOTPATH
- INDICATIVE DRIVEWAY LOCATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL
- EXISTING TRUNK SEWER
- BUILD TO BOUNDARY

N

NOTE:

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Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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PROJECT: Lilywood LANDINGS
STAGE 23

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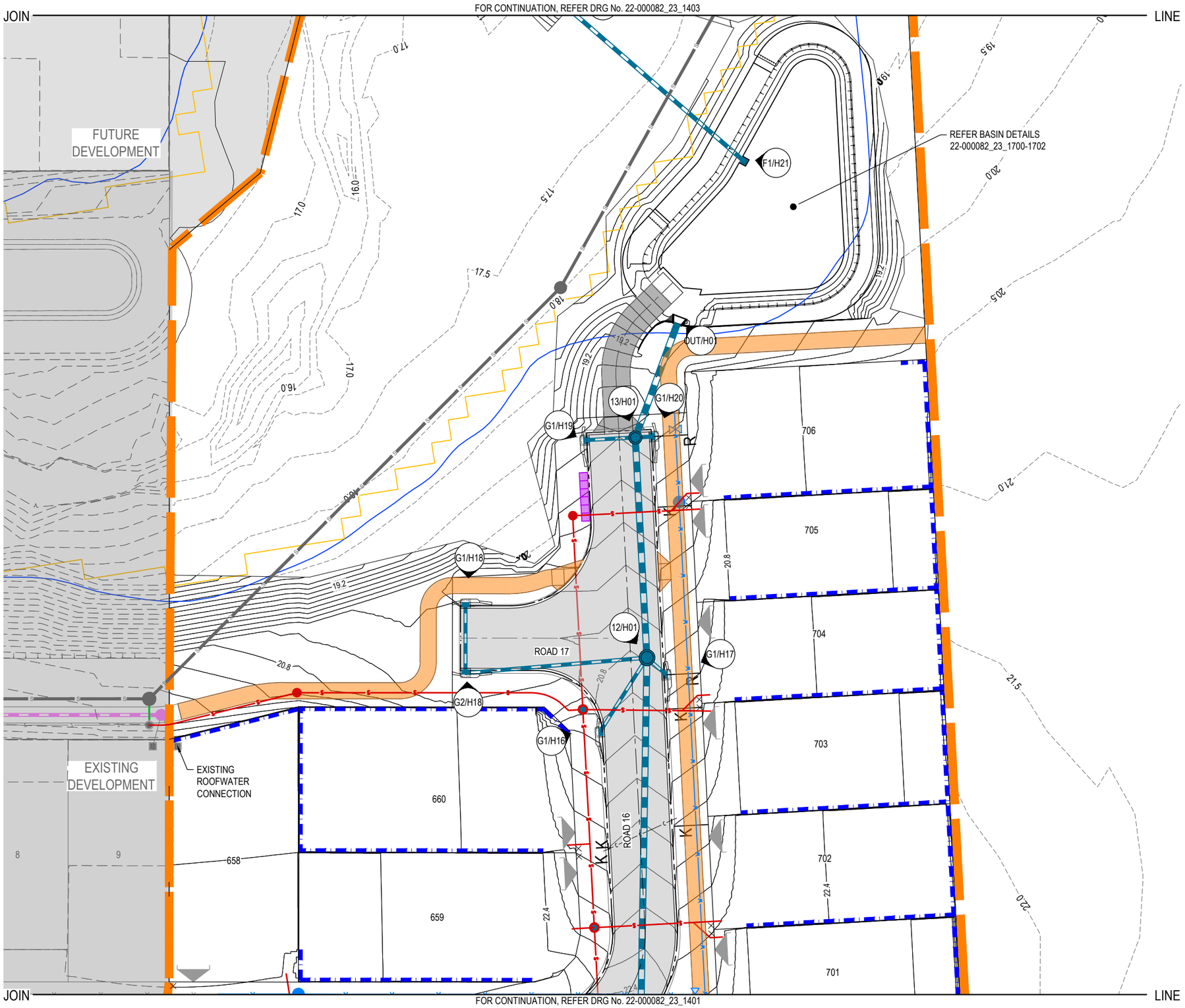
DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 2 OF 4

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1401	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- EXISTING SURFACE CONTOUR (0.5m INTERVALS) (64.0)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS) (66.0)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- PROPOSED KERB ADAPTER + LINE (K)
- PROPOSED ROOF WATER LINE (R)
- PROPOSED BATTERS
- CONCRETE FOOTPATH
- INDICATIVE DRIVEWAY LOCATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL
- EXISTING TRUNK SEWER (ST)
- BUILD TO BOUNDARY

N

NOTE:

1. REFER TO DRG 22-000082_23_1405 FOR STORMWATER STANDARD NOTES AND DETAILS.
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DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS — STAGE 23

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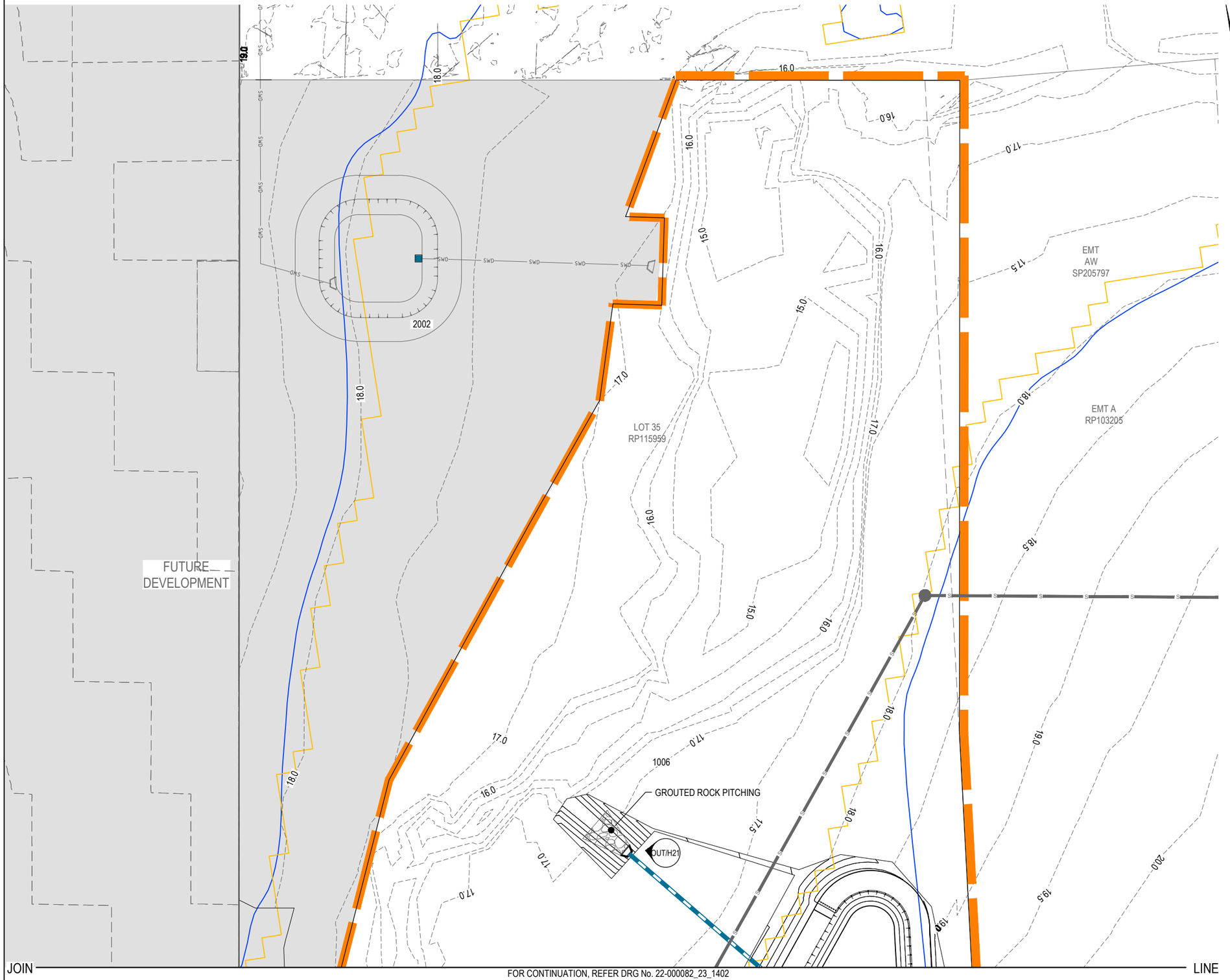
DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 3 OF 4

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1402	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- 64.0 EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER FITTING
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
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- K PROPOSED KERB ADAPTER + LINE
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- PROPOSED BATTERS
- CONCRETE FOOTPATH
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- 5% AEP (20YR ARI) FLOOD LEVEL
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- BUILD TO BOUNDARY

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Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

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PROJECT: Lilywood LANDINGS
STAGE 23

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DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 4 OF 4

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1403	B

Moreton Bay Regional Council

STORMWATER DRAINAGE NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT M.B.R.C STANDARD DRAWINGS AND METHODS.
2. ALL STORMWATER PIPES UNDER ROADWAYS AND FOOTPATHS SHALL BE RCP CLASS 3 U.N.O.
3. ALL STORMWATER PIPES UP TO AND INCLUDING 600Ø SHALL BE R.R.J. STORMWATER PIPES GREATER THAN 600Ø SHALL BE INTERNAL FLUSH JOINTED WITH PROPRIETARY EXTERNAL BAND.
4. STEPIRONS ARE TO BE PROVIDED IN STORMWATER MANHOLES AND GULLIES GREATER THAN 1.20m DEEP, IN ACCORDANCE WITH M.B.R.C STD. DRG. SD.10.
5. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
6. CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
7. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF DEMOLISHING ANY EXISTING STRUCTURES WITHIN THE SITE AREAS.
8. THE STORMWATER PIPE CLASSES HAVE BE DESIGNED FOR SERVICE LOADS ONLY, AND THE CONTRACTOR SHALL ASSESS ANTICIPATED CONSTRUCTION LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY, IN ACCORDANCE WITH AS3725-2007.
9. RETAINING WALL SUBSOIL DRAINS TO CONNECT TO KERB AND CHANNEL SUBSOIL OR STORMWATER DRAINAGE STRUCTURES.
10. WORKS SHALL BE PROGRAMMED SO AS NOT TO DISTURB NEARBY HOUSEHOLDERS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES.
11. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
12. ANTI PONDING GULLIES ARE TO BE SIDE ENTRY TYPE. CHAMBER AND GRATE ONLY TYPE NOT TO BE USED.
13. GULLY PITS IN EXCESS OF 1.5 METRES DEEP ARE TO BE CONSTRUCTED AS A GULLY PIT/ACCESS CHAMBER STRUCTURE.
14. CRACKS IN STORMWATER PIPES WILL NOT BE ACCEPTED.
15. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SATISFACTORY CONNECTION AND THE CONTRACTOR SHALL INCLUDE THE COST OF THIS WORK IN THE TENDER PRICE. WHERE NEW WORK JOINS EXISTING, THE WORK SHALL TRANSITION NEATLY WITH THE PAVEMENT SO THAT DEVIATION FROM THE LINE OF A 3.0m STRAIGHT EDGE SHALL BE NO GREATER THAN 10mm.
16. CONDUITS SHALL BE IN ACCORDANCE WITH I.P.W.E.A STD. DRG. RS-101.
17. ALL EXCAVATION AND FILLING SHALL BE COMPACTED TO THE REQUIREMENTS OF AS3798-2007 IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS.
18. ALL LEVELS ARE IN METRES ABOVE AUSTRALIAN HEIGHTS DATUM (mAHD) UNLESS OTHERWISE SHOWN

KERB ADAPTORS NOTES

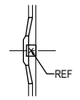
ALL LOTS NOT DRAINING TO A PROPERTY PIT TO HAVE 2 KERB ADAPTORS . KERB ADAPTORS SHOWN ARE INDICATIVE ONLY AND ARE TO BE INSTALLED IN ACCORDANCE WITH IPWEA STD DRG RS-081.

NOTE:
NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

SCOUR PROTECTION NOTES:

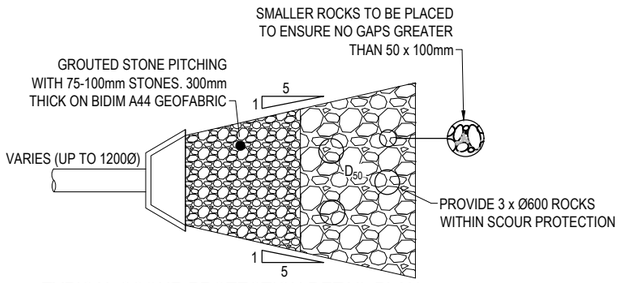
1. IF ROCK SIZE IS SPECIFIED ON THE PLAN AS D_{50} THIS CORRESPONDS TO A ROCK SIZE WITH A MEDIAN ROCK DIAMETER OF D_{50}. A VARIANCE OF ±30% IS ACCEPTABLE. Eg. IF D_{50} = 600 IS SPECIFIED THEN THE EQUIVALENT ROCK DIAMETER RANGES FROM 420mm TO 780mm.
2. NEITHER BREADTH NOR THICKNESS OF A SINGLE ROCK SHALL BE LESS THAN ONE HALF ITS LENGTH (ie THE ROCK SHALL BE CHUNKY RATHER THAN FLAT).
3. ROCK TYPE - BASALT OR OTHER APPROVED MATERIAL. TO BE CONFIRMED WITH SUPERINTENDENT BEFORE COMMENCING ROCK WORK.
4. ROCKS GREATER THAN D_{50}=450 TO BE PLACED AND INTERLOCKED INTO POSITION AND BUILT UP TO FINAL LEVELS SHOWN, ENSURING COVERAGE OF GEOFABRIC. GAPS BETWEEN THE BOULDERS ARE TO BE FILLED BY DROPPING STONES INTO GAPS AND LOCKING INTO POSITION WITH A CROWBAR.
5. ROCKS LESS THAN & EQUAL TO D_{50}=450 TO BE DUMPED & MOVED INTO POSITION. BUILD UP TO FINAL LEVELS & ENSURING COVERAGE OF GEOFABRIC.

REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

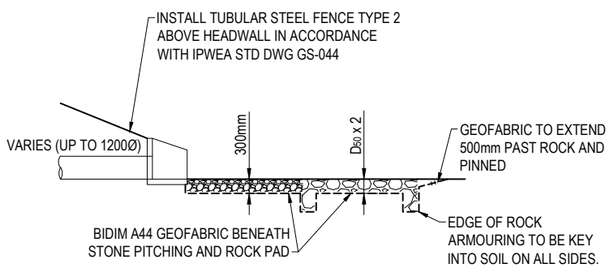
STRUCTURE TYPE	HORIZONTAL CONTROL (REFERENCE POINT LOCATION)		VERTICAL CONTROL (REFERENCE LEVEL)
MANHOLE		℄ OF MAIN SHAFT	FINISHED SURFACE LEVEL
GULLY PIT		GEOMETRIC CENTRE OF PIT STRUCTURE	KERB LIP LEVEL
HEADWALL		INTERSECTION OF HEADWALL FACE AND PIPE ℄	INVERT OF HEADWALL

ROCK SCOUR PROTECTION

OUTLET	OUTLET PIPE SIZE	VELOCITY	D_{50}	'L'
OUT/H21	Ø 450	2.06m/s	300 mm	5.0m

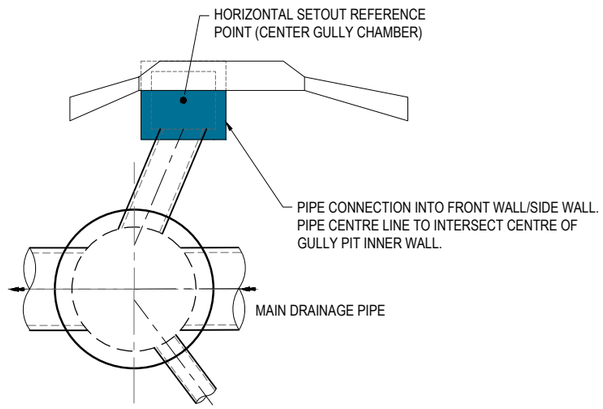


TYPICAL SCOUR PROTECTION DETAIL PLAN
NTS

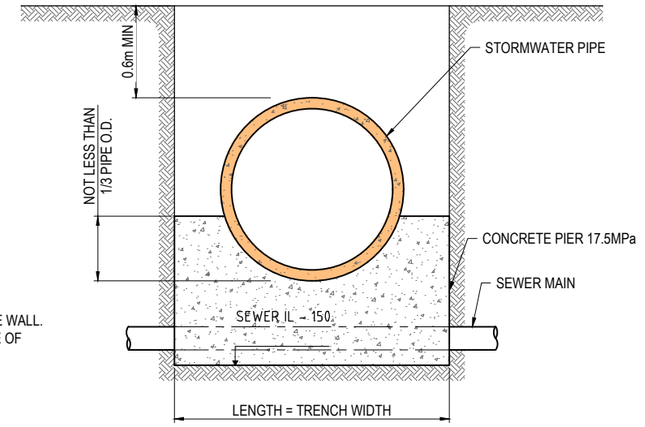


TYPICAL SCOUR PROTECTION SECTION
NTS

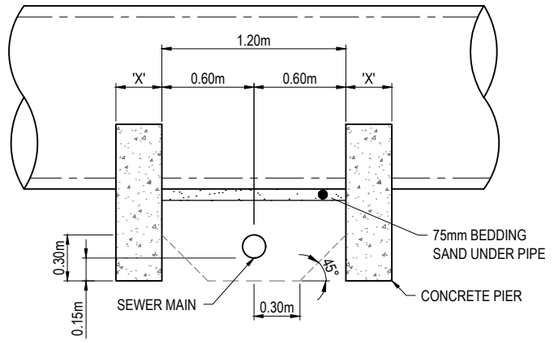
NOTE:
CONTRACTOR TO ENSURE PIPE CONNECTORS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS.



TYPICAL GULLY PIT PIPE CONNECTION DETAIL
NTS



STORMWATER / SEWER BRIDGING DETAIL - SECTION
SCALE 1:20 (A1)
SCALE 1:40 (A3)



STORMWATER / SEWER BRIDGING DETAIL - ELEVATION
SCALE 1:20 (A1)
SCALE 1:40 (A3)

PIPE SIZE	X = WIDTH OF CONCRETE PIERS (mm)	
	FIRM/STIFF CLAY SAFE BEARING >150kPa	STIFF/VERY STIFF CLAY SAFE BEARING >200kPa
600Ø - 1050Ø	600	450
1200Ø - 2100Ø	450	350

NOTE:
GROUND CONDITIONS TO BE VERIFIED ON-SITE BY SUPERINTENDENT. IF LESSER GROUND CONDITIONS PREVAIL, SPECIALLY DESIGNED DRILLED PIERS ARE TO BE CONSIDERED.

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL
APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:20 0.2 0 0.2 0.4 0.6 0.8 1m A1
1:40 A3
1:50 1 0.5 0 1 2m A1
1:100 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

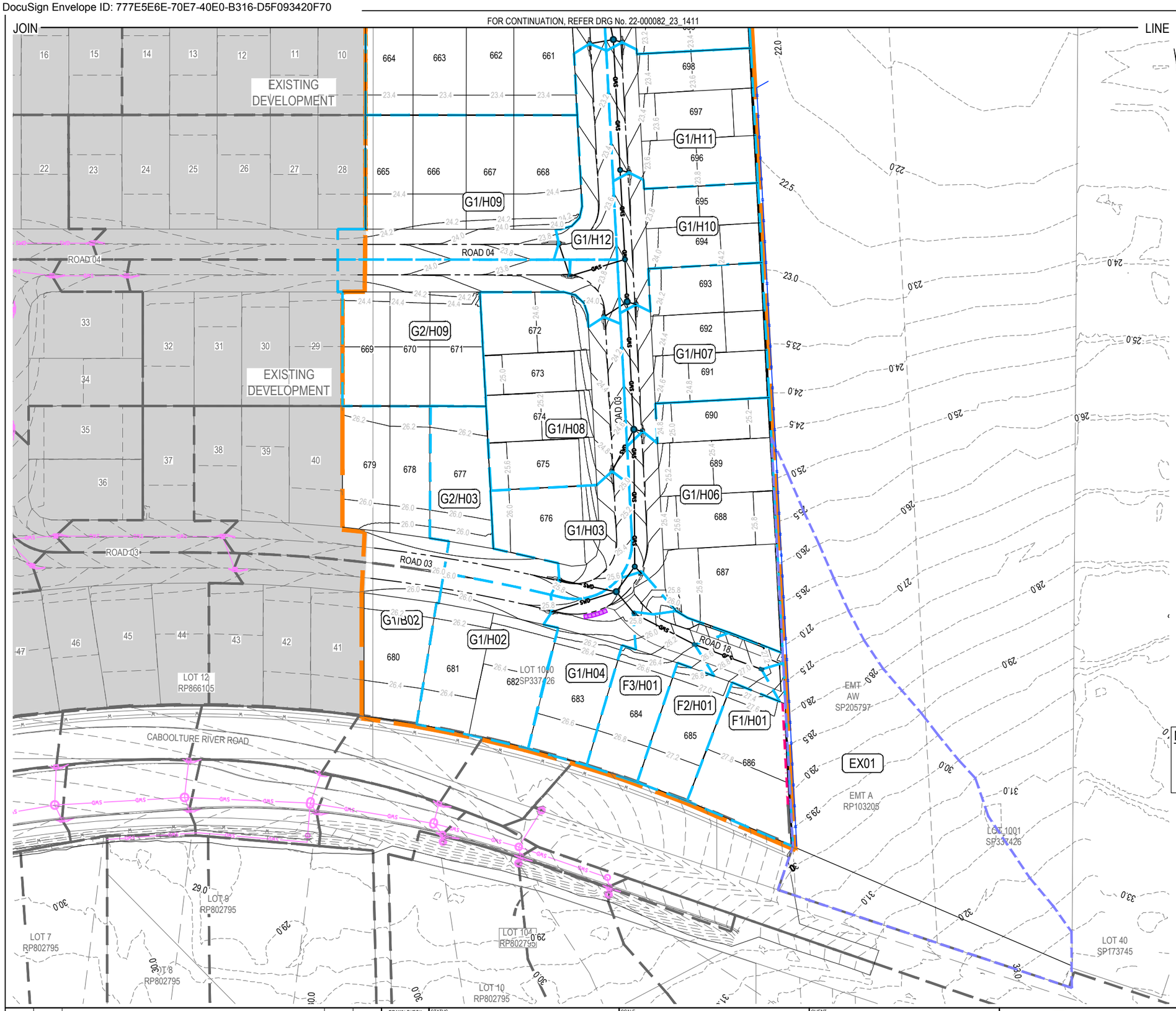
www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: STORMWATER DRAINAGE NOTES AND DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1404	B



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- 64.0 EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- PROPOSED CATCHMENTS BOUNDARY
- EXTERNAL CATCHMENTS BOUNDARY
- EXISTING CATCHMENTS BOUNDARY
- G1/H04 CATCHMENT NOTATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL

CATCHMENT NAME	CATCHMENT AREA (Ha)
F1/H01	0.0798
F2/H01	0.0708
F3/H01	0.0717
G1/H02	0.1249
G1/H03	0.0816
G1/H04	0.0890
G1/H05	0.0849
G1/H06	0.2131
G1/H07	0.1338
G1/H08	0.1782
G1/H09	0.2146
G2/H09	0.1811
G1/H10	0.0908
G1/H11	0.1339
G1/H12	0.0541
G1/H13	0.2194
G1/H14	0.0329
G1/H15	0.1328
G1/H16	0.1480
G1/H17	0.1613
G1/H18	0.0031
G2/H18	0.0225
G1/H19	0.0152
G1/H20	0.1093
EX01	0.4414

NOTE:
1. REFER TO DRG 22-000082_23_1402 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRG 22-000082_23_1410 FOR STORMWATER CATCHMENT PLAN.
3. REFER TO DRGs 22-000082_23_1420-1423 FOR STORMWATER LONGITUDINAL SECTIONS.
4. REFER TO DRGs 22-000082_23_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN
UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! OVERHEAD ELECTRICAL CABLES
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND ELECTRICAL CABLES
UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK
DESIGN CHECK

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:500 / 1:1000 — 10 5 0 10 20m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS — STAGE 23

DISCLAIMER
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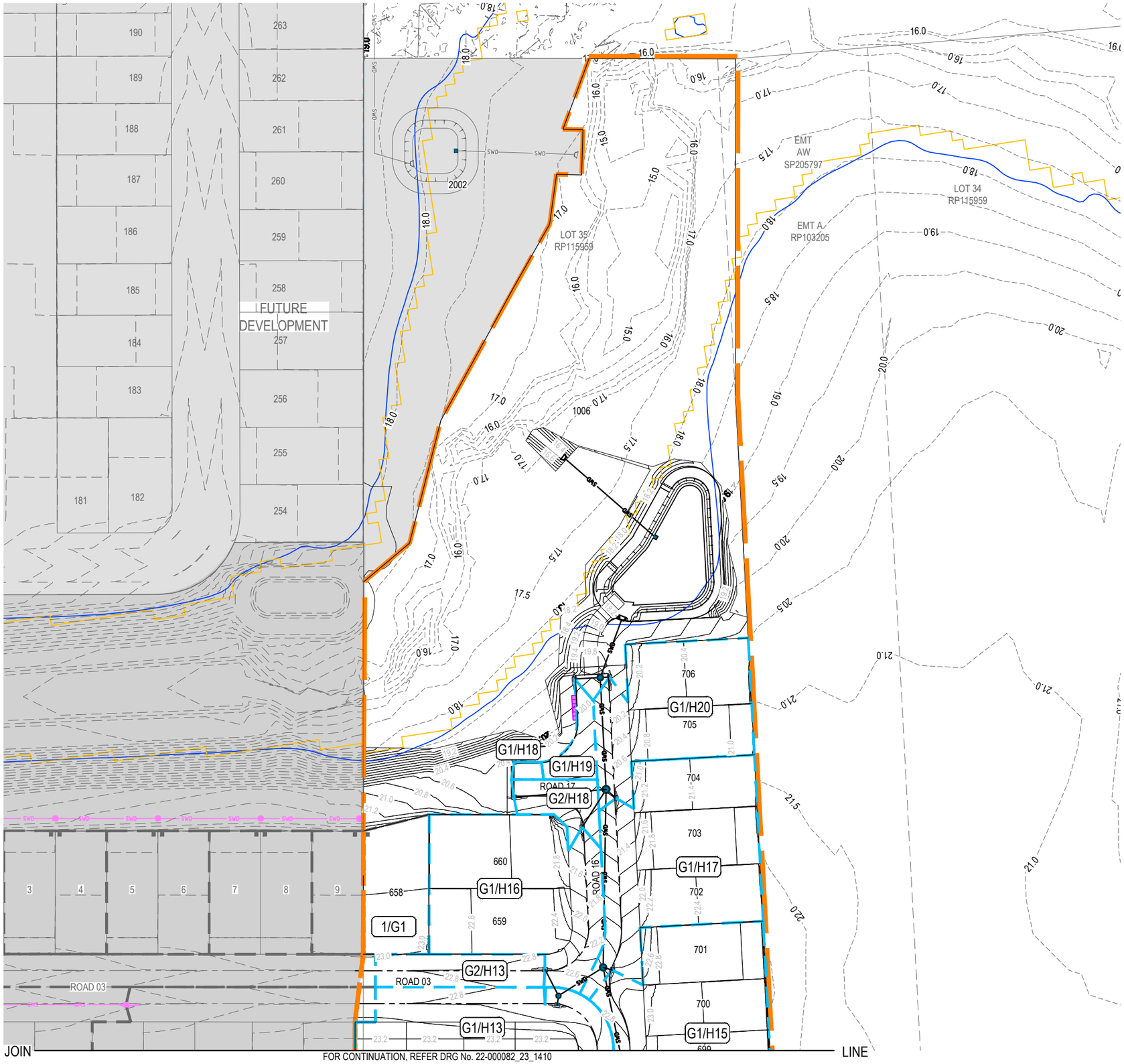
DRAWING TITLE: STORMWATER CATCHMENT PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1410	B

Moreton Bay Regional Council



N

LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- PROPOSED CATCHMENTS BOUNDARY
- EXTERNAL CATCHMENTS BOUNDARY
- EXISTING CATCHMENTS BOUNDARY
- G1/H04 CATCHMENT NOTATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL

NOTE:

1. REFER TO DRG 22-000082_23_1402 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRGs 22-000082_23_1420-1423 FOR STORMWATER LONGITUDINAL SECTIONS.
3. REFER TO DRGs 22-000082_23_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES — UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.	**CAUTION !!** UNDERGROUND GAS MAIN — UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING
CAUTION !! OVERHEAD ELECTRICAL CABLES — OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.	**CAUTION !!** UNDERGROUND ELECTRICAL CABLES — UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

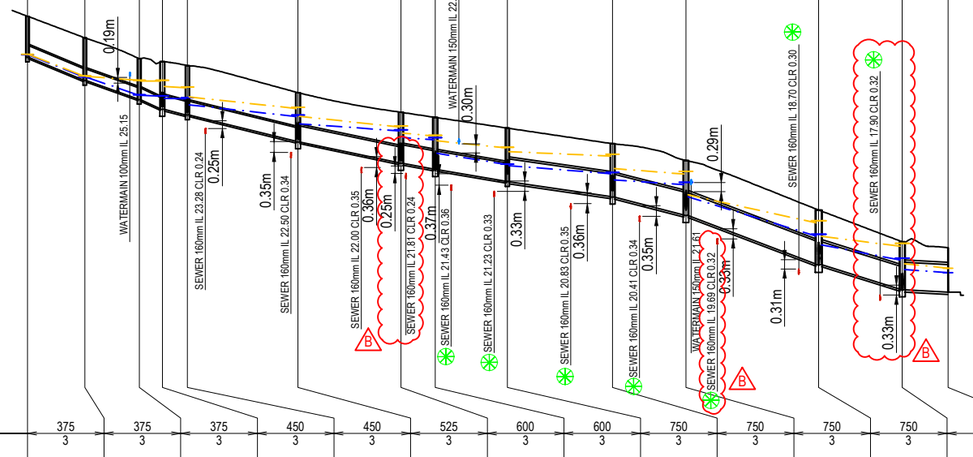
REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

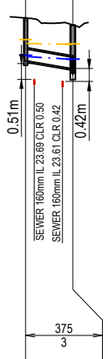
DRAWN CHECK: aa
DESIGN CHECK: MH
STATUS: FOR APPROVAL
APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD
SCALE: 1:500 10 5 0 10 20m A1; 1:1000 A3
CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP
egis — © 2023 Egis Consulting Pty Ltd — www.egis-group.com
PROJECT: Lilywood LANDINGS — STAGE 23
DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.
DRAWING TITLE: STORMWATER CATCHMENT PLAN SHEET 2 OF 2
PROJECT No. 22-000082_23 | DRAWING No. 1411 | REVISION B

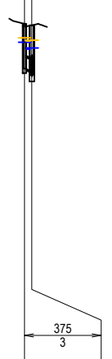
Moreton Bay Regional Council

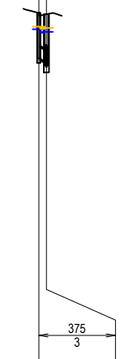
STRUCTURE NAME	F1/H01	F2/H01	F3/H01	4/H01	5/H01	6/H01	7/H01	8/H01	9/H01	10/H01	11/H01	12/H01	13/H01	OUT/H01
STRUCTURE DESCRIPTION	IPWEAQQ FIELD INLET 600x900 TYPE 2B	IPWEAQQ FIELD INLET 600x900 TYPE 2B	FIELD INLET 600x900 FLUSH GRATE	MANHOLE 1200mm DIA	MANHOLE 1050mm DIA	MANHOLE 1200mm DIA	MANHOLE 1200mm DIA	MANHOLE 1200mm DIA	MANHOLE 1050mm DIA	MANHOLE 1200mm DIA	MANHOLE 1350mm DIA	MANHOLE 1800mm DIA	MANHOLE 1500mm DIA	PRECAST HEADWALL
PIPE SIZE (mm)	375	375	375	450	450	525	600	600	750	750	750	750	900	
PIPE CLASS	3	3	3	3	3	3	3	3	3	3	3	3	4	
PIPE GRADE (%)	3.96%	3.37%	4.00%	2.25%	2.37%	2.03%	1.61%	1.62%	1.40%	2.42%	3.65%	2.93%	0.54%	
PIPE SLOPE (1 in X)	25.27	29.66	25.02	44.48	42.15	49.38	62.15	61.89	71.52	41.28	27.40	34.08	186.54	
FULL PIPE VELOCITY (m/s)	0.10	0.23	0.35	0.84	1.42	1.65	1.77	2.42	1.64	1.83	2.21	2.52	1.84	
PART FULL VELOCITY (m/s)	1.45	1.75	2.09	2.38	2.78	2.94	2.93	3.11	3.05	3.86	4.71	4.48	2.35	
DATUM RL	9.0													
H.G.L IN PIPE & W.S.E IN STRUCTURE	25.839 25.836 25.122 25.123	25.115 24.532 24.535	24.521 24.497 24.508	24.415 24.412 24.446	24.210 23.829 23.873	23.593 23.362 23.396	23.147 23.072 23.143	22.630 22.268 22.276	22.228 21.964 22.005	21.758 21.609 21.686	21.209 19.935 19.989	19.645 19.152 19.214	18.838 18.741 18.741	18.741
PIPE FLOW (Cumecs)	0.011	0.026	0.038	0.134	0.226	0.357	0.502	0.684	0.724	0.810	0.975	1.113	1.171	
PIPE CAPACITY AT GRADE (Cumecs)	0.349	0.322	0.351	0.428	0.439	0.612	0.779	0.781	1.317	1.733	2.128	1.908	1.326	
DEPTH TO INVERT	1.339	1.374	1.394	1.313	1.333	1.538	1.558	1.611	1.611	1.589	1.609	1.647	1.667	1.681	1.701	1.732	1.752	1.723	1.743	1.779	1.799	1.758	1.778	1.546	1.566	1.450	1.450
INVERT LEVEL OF DRAIN	25.760	25.020	25.000	24.400	24.380	24.080	24.220	23.876	23.876	23.020	23.000	22.320	22.300	22.120	22.100	21.720	21.700	21.220	21.200	20.620	20.600	19.020	19.000	18.200	18.180	18.100	18.100
DESIGN SURFACE LEVEL	27.099	26.394	25.713	25.618	25.487	24.609	23.967	23.801	23.452	22.943	22.399	20.778	19.746	19.550													
SETOUT COORDINATES	E 91146.128 N 501943.526	E 91129.816 N 501952.670	E 91115.431 N 501963.138	E 91111.596 N 501969.590	E 91117.428 N 501975.359	E 91122.773 N 502011.017	E 91126.227 N 502044.417	E 91127.377 N 502055.545	E 91129.796 N 502078.937	E 91133.327 N 502113.084	E 91132.275 N 502137.003	E 91139.707 N 502179.648	E 91142.511 N 502206.766	E 91149.783 N 502219.792													
RUNNING CHAINAGE	0.000	18.700 18.700	17.795 36.496	7.506 44.002	8.203 52.205	36_221 88.266	33.577 121.843	11.188 133.031	23.517 156.547	34.329 190.876	23.943 214.819	43.288 258.107	27.262 285.369	14.923 300.292													
LINE	Line H01																										

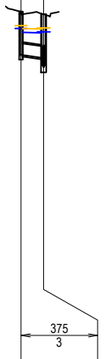
STRUCTURE NAME	G1/H02	4/H01	G1/H03	4/H01	G1/H04	5/H01	G1/H05	6/H01	G1/H06	6/H01	G1/H07	7/H01	G1/H08	7/H01
STRUCTURE DESCRIPTION	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA
PIPE SIZE (mm)	375	375	375	375	375	375	375	375	375	375	375	375	375	375
PIPE CLASS	3	3	3	3	3	3	3	3	3	3	3	3	3	3
PIPE GRADE (%)	1.40%		1.63%		2.40%		2.22%		3.34%		4.44%		1.22%	
PIPE SLOPE (1 in X)	71.40		61.50		41.65		45.00		29.96		22.52		81.95	
FULL PIPE VELOCITY (m/s)	0.53		0.34		0.84		0.36		0.86		0.69		0.67	
PART FULL VELOCITY (m/s)	1.61		1.51		2.23		1.71		2.53		2.63		1.64	
DATUM RL	11.0		11.0		11.0		10.0		10.0		9.0		9.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	24.762 24.625 24.497 24.508	24.415	24.632 24.590 24.497 24.508	24.415	24.712 24.418 24.412 24.446	24.210	23.898 23.835 23.829 23.873	23.593	24.057 23.836 23.829 23.873	23.593	23.482 23.366 23.362 23.396	23.147	23.506 23.375 23.362 23.396	23.147
PIPE FLOW (Cumecs)	0.058		0.038		0.093		0.040		0.095		0.076		0.074	
PIPE CAPACITY AT GRADE (Cumecs)	0.208		0.224		0.272		0.261		0.320		0.370		0.194	
DEPTH TO INVERT	1.396	1.418	1.397	1.418	1.474	1.487	1.420	1.389	1.458	1.489	1.482	1.547	1.414	1.417
INVERT LEVEL OF DRAIN	24.450	24.200	24.450	24.200	24_220	24.000	23.500	23.220	23.200	23.120	22.530	22.420	22.640	22.550
DESIGN SURFACE LEVEL	25.846	25.618	25.847	25.618	25.534	25.487	24.920	24.609	24.658	24.609	24.012	23.967	24.054	23.967
SETOUT COORDINATES	E 91094.031 N 501966.997	E 91111.596 N 501969.590	E 91097.263 N 501974.962	E 91111.596 N 501969.590	E 91118.871 N 501973.358	E 91117.428 N 501975.359	E 91115.407 N 502001.005	E 91122.773 N 502011.017	E 91124.995 N 502010.169	E 91122.773 N 502011.017	E 91128.426 N 502043.348	E 91126.227 N 502044.417	E 91119.587 N 502041.431	E 91126.227 N 502044.417
RUNNING CHAINAGE	0.000 17.851	17.851	0.000 15.375	15.375	0.000 2.499	2.499	0.000 12.601	12.601	0.000 2.397	2.397	0.000 2.478	2.478	0.000 7.375	7.375
LINE	Line H02		Line H03		Line H04		Line H05		Line H06		Line H07		Line H08	











LEGEND

- DESIGN SURFACE
- EXISTING SURFACE
- HYDRAULIC GRADE LINE (10% AEP ARI)
- HYDRAULIC GRADE LINE (1% AEP ARI)

NOTES:

1. NOTWITHSTANDING THE STORMWATER STRUCTURE LEVELS SHOWN, THE COVER OR GRATE LEVEL SHALL SUIT THE FINISHED SURFACE PROFILE.
2. THE PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS ANTICIPATED LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS 3725-2007. CRACKED PIPES WILL NOT BE ACCEPTED.
3. REFER DRG 22-000082_22-1404 FOR STORMWATER NOTES.

BRIDGING NOTE:

REFER TO BRIDGING DETAIL ON DRG 22-000082_22-1405

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:1000 1:2000 10 0 10 20 30 40 50m HORIZONTAL A1 A3
1:100 1:200 2 1 0 2 4m VERTICAL A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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DRAWING TITLE: STORMWATER LONGITUDINAL SECTIONS SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1420	B

Moreton Bay Regional Council

STRUCTURE NAME	G1/H09	G2/H09	8/H01	G1/H10	9/H01	G1/H11	10/H01	G1/H12	10/H01	G1/H13	2/H13	11/H01	G1/H14	2/H13	G1/H15	11/H01	G1/H16	12/H01	G1/H17	12/H01	G1/H18	G2/H18	12/H01	G1/H19	13/H01	G1/H20	13/H01	F1/H21	OUT/H21
STRUCTURE DESCRIPTION	GULLY PIT L.I.L; 3.6m Lintel; MK&C	GULLY PIT (SAG) L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1200mm DIA	GULLY PIT (SAG) L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA	MANHOLE 1350mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1350mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1800mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1800mm DIA	GULLY PIT L.I.L; 2.4m Lintel; BK&C	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1800mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1500mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1500mm DIA	FIELD INLET 900x900 RAISED GRATE	PRECAST HEADWALL
PIPE SIZE (mm)	450	525		375		375		375		375	375		375		375		375		375		375	375		375		375		450	
PIPE CLASS	3	3		3		3		3		3	3		3		3		3		3		3	3		3		3		3	
PIPE GRADE (%)	0.87%	0.86%		4.04%		3.93%		2.36%		3.48%	2.94%		1.11%		3.05%		3.62%		4.75%		0.70%	0.71%		2.39%		2.61%		1.03%	
PIPE SLOPE (1 in X)	114.49	116.88		24.77		25.44		42.31		28.72	34.05		90.23		32.82		27.61		21.04		142.75	141.35		41.78		38.29		97.38	
FULL PIPE VELOCITY (m/s)	0.59	0.86		0.41		0.56		0.28		0.92	1_22		0.14		0.51		0.54		0.61		0.01	0.19		0_22		0.52		1.68	
PART FULL VELOCITY (m/s)	1.53	1.81		2.20		2.38		1.62		2.62	2.55		1.01		2.12		2.28		2.61		0.42	0.95		1.05		2.01		2_22	
DATUM RL	9.0			9.0		8.0		8.0		7.0			8.0		8.0		6.0		6.0		5.0			5.0		5.0		3.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	23.307 / 23.192	23.182 / 23.196	23.100	23.072 / 23.143	22.630	22.338 / 22.254	22.268 / 22.276	22.228	22.125 / 21.967	21.964 / 22.005	21.758	22.004 / 21.966	21.964 / 22.005	21.758	22.087 / 21.800	21.792 / 21.809	21.667	21.609 / 21.686	21.209	21.802 / 21.793	21.792 / 21.809	21.667	21.725 / 21.612	21.609 / 21.686	21.209	20.228 / 19.926	19.935 / 19.989	19.645	20.104 / 19.940
PIPE FLOW (Cumecs)	0.094	0.187		0.045		0_222		0.031		0.102	0.117		0.015		0.057		0.059		0_228		0.001	0.022		0.007		0.058		0.267	
PIPE CAPACITY AT GRADE (Cumecs)	0.267	0.398		0.352		0.348		0.270		0.327	0.301		0.185		0.306		0.334		0.382		0.147	0.148		0.271		0.283		0.289	
DEPTH TO INVERT	1.389	1.418	1.681	1.397	1.452	1.389	1.443	1.387	1.493	1.403	1.450	1.470	1.410	1.450	1.355	1.399	1.448	1.478	1.436	1.478	1.278	1.315	1.335	1.758	1.405	1.546	1.417	1.446	1.566	1.800	1.012
INVERT LEVEL OF DRAIN	22.350	22.270	22.120	22.100	22.000	21.600	21.500	21.600	21.450	21.300	21.220	21.200	21.300	21.220	21.070	21.000	19.700	19.300	19.460	19.300	19.260	19.200	19.180	19.020	18.350	18.200	18.360	18.300	18.180	16.500	16.200
DESIGN SURFACE LEVEL	23.739	23.688	23.801	23.497	23.452	22.989	22.943	22.987	22.943	22.703	22.670	22.399	22.710	22.670	22.425	22.399	21.148	20.778	20.896	20.778	20.538	20.515	20.778	19.755	19.746	19.777	19.746	18.300	17.212	16.200	
SETOUT COORDINATES	E 91110.864 N 502062.388	E 91112.379 N 502053.416	E 91127.377 N 502055.545	E 91131.995 N 502077.869	E 91129.796 N 502078.937	E 91135.523 N 502111.983	E 91133.327 N 502113.084	E 91126.985 N 502112.975	E 91133.327 N 502113.084	E 91119.821 N 502129.639	E 91120.451 N 502131.848	E 91132.275 N 502137.003	E 91118.240 N 502138.669	E 91120.451 N 502131.848	E 91134.344 N 502136.004	E 91132.275 N 502137.003	E 91132.531 N 502171.476	E 91139.707 N 502179.648	E 91141.763 N 502177.187	E 91139.707 N 502179.648	E 91118.563 N 502189.716	E 91117.231 N 502181.256	E 91139.707 N 502179.648	E 91136.277 N 502207.411	E 91142.511 N 502206.766	E 91144.797 N 502206.530	E 91142.511 N 502206.766	E 91161.110 N 502238.420	E 91142.300 N 502260.759
RUNNING CHAINAGE	0.000 / 9.159	9.159 / 15.194	24.353	0.000 / 2.477	2.477	0.000 / 2.544	2.544	0.000 / 6.347	6.347	0.000 / 2.297	2.297 / 12.940	15.238	0.000 / 7.219	7.219	0.000 / 2.297	2.297	0.000 / 11.042	11.042	0.000 / 3.367	3.367	0.000 / 8.565	8.565 / 22.616	31.181	0.000 / 6.268	6.268	0.000 / 2.297	2.297	0.000 / 29.214	29.214
LINE	Line H09			Line H10		Line H11		Line H12		Line H13			Line H14		Line H15		Line H16		Line H17		Line H18			Line H19		Line H20		Line H21	

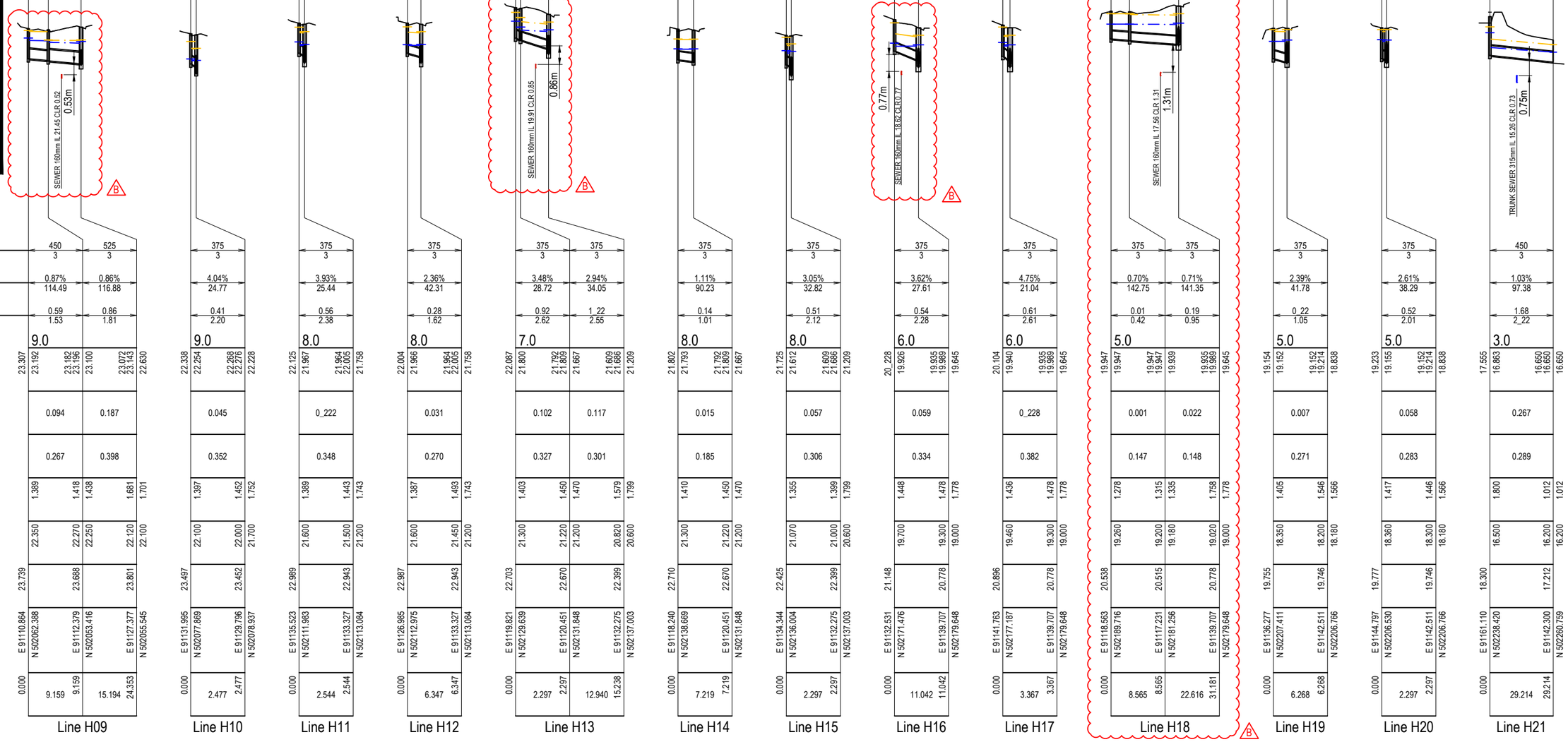
LEGEND

- DESIGN SURFACE
- EXISTING SURFACE
- HYDRAULIC GRADE LINE (10% AEP ARI)
- HYDRAULIC GRADE LINE (1% AEP ARI)

NOTES:

1. NOTWITHSTANDING THE STORMWATER STRUCTURE LEVELS SHOWN, THE COVER OR GRATE LEVEL SHALL SUIT THE FINISHED SURFACE PROFILE.
2. THE PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS ANTICIPATED LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS 3725-2007. CRACKED PIPES WILL NOT BE ACCEPTED.
3. REFER DRG 22-000082_22-1404 FOR STORMWATER NOTES.

BRIDGING NOTE:
REFER TO BRIDGING DETAIL ON DRG 22-000082_22-1405



REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:1000 / 1:2000 HORIZONTAL 10 0 10 20 30 40 50m A1 A3
1:100 / 1:200 VERTICAL 2 1 0 2 4m A1 A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: STORMWATER LONGITUDINAL SECTIONS SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1421	B

	LOCATION	CATCHMENT PROPERTIES			FULL AREA RUNOFF					PART AREA RUNOFF					INLET DESIGN										DRAIN DESIGN								HEADLOSSES								PART FULL		DESIGN LEVELS								
		fi	Ci	Cp	tc	I	A	CA	Q	tc	I	A	CA	Q	Qa						Qg	Qb		tc	I	CA	Qp	L	S		Vf	S/Do	Qg/Qo	Du/Do		Vf2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn									
DESIGN ARI	STRUCTURE No.	FRACTION IMPERVIOUS	COEFFICIENT OF RUNOFF IMPERVIOUS AREA	COEFFICIENT OF RUNOFF PERVIOUS AREA	TIME OF CONCENTRATION	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	TIME OF CONCENTRATION	RAINFALL INTENSITY	PARTIAL CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C(INC. BYPASS)	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	FULL PIPE VELOCITY	SUBMERGENCE RATIO	GRATE FLOW RATIO	DIAMETER RATIO	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
Yrs					min	mm/h	ha	ha	L/s	min	mm/h	ha	ha	L/s	L/s	m	m		%	%		L/s	L/s		min	mm/hr	ha	L/s	m	%	mm	m/s					m	m			m	%	m	m	m/s	m	m	m	m	m	m	
10%	F1/H01	85	0.9	0.64	10	168	0.08	0.068	32	5	207	0.074	0.065	37	37	2.374	0.036	0.03	3.77	3	F1-6x9 on-grade 50% Blockage	11	26	F2/H01	5	207	0.065	11	18.7	3.96	375	0.1	1.01	1		G1	0.001	7	0.004		0.004	3.81	0.728	0.047	1.45	25.76	25.02	25.836	25.122	25.839	27.099	1.259	F1/H01
10%	F2/H01	85	0.9	0.64	10	168	0.071	0.061	28	5	207	0.065	0.057	33	59	2.814	0.042	0.04	3.77	3	F1-6x9 on-grade 50% Blockage	15	44	F3/H01	5.1	206	0.122	26	17.795	3.37	375	0.23	1.02	0.56	1	G1/T1/T3	0.003	2.6	0.007	2.76	0.008	3.28	0.596	0.072	1.75	25	24.4	25.115	24.532	25.123	26.394	1.271	F2/H01
10%	F3/H01	85	0.9	0.64	10	168	0.072	0.061	29	5	207	0.066	0.058	33	77		0.03		3.77		FSIP-6x9	13	64	G1/H04	5.2	205	0.18	38	7.506	4	375	0.35	1.04	0.33	1	T3	0.006	1.78	0.011	2.31	0.014	0.32	0.07	0.084	2.09	24.38	24.08	24.521	24.497	24.535	25.713	1.177	F3/H01
10%	4/H01	0																			MH1200				5.24	205	0.347	134	8.203	2.25	450	0.84	1.21	0	1	T6/T9	0.036	2.27	0.082	2.58	0.093	0.03	0.017	0.173	2.38	24.06	23.876	24.415	24.412	24.508	25.618	1.11	4/H01
10%	5/H01	0																			MH1050				5.29	205	0.42	226	36.061	2.37	450	1.42	1.52	0	1	T3/T6	0.103	1.96	0.202	2.29	0.236	1.06	0.44	0.229	2.78	23.876	23.02	24.21	23.829	24.446	25.487	1.041	5/H01
10%	6/H01	0																			MH1200				5.43	204	0.661	357	33.577	2.03	525	1.65	1.66	0	1	T3/T6	0.139	1.71	0.237	2.02	0.281	0.69	0.231	0.288	2.94	23	22.32	23.593	23.362	23.873	24.609	0.736	6/H01
10%	7/H01	0																			MH1200				5.62	202	0.915	502	11.188	1.61	600	1.77	1.83	0	1	T1/T3	0.161	1.34	0.215	1.56	0.25	0.67	0.075	0.35	2.93	22.3	22.12	23.147	23.072	23.396	23.967	0.57	7/H01
10%	8/H01	0																			MH1200				5.68	202	1.236	684	23.517	1.62	600	2.42	1.86	0	1	T1/T3	0.298	1.48	0.442	1.72	0.513	1.54	0.378	0.435	3.11	22.1	21.72	22.63	22.268	23.143	23.801	0.658	8/H01
10%	9/H01	0																			MH1050				5.82	201	1.31	724	34.329	1.4	750	1.64	1.06	0	0.94	T1/T3	0.137	0.29	0.04	0.35	0.048	0.75	0.363	0.397	3.05	21.7	21.22	22.228	21.97	22.276	23.452	1.176	9/H01
10%	10/H01	0																			MH1200				6.01	199	1.464	810	23.943	2.42	750	1.83	1.34	0	1	T1/T3	0.171	1.24	0.212	1.49	0.255	0.62	0.247	0.361	3.86	21.2	20.62	21.758	21.609	22.013	22.943	0.93	10/H01
10%	11/H01	0																			MH1350				6.1	198	1.779	975	43.288	3.65	750	2.21	1.64	0	1	T1/T3	0.249	1.61	0.4	1.92	0.477	2.94	1.354	0.357	4.71	20.6	19.02	21.209	19.935	21.686	22.399	0.713	11/H01
10%	12/H01	0																			MH1800				6.16	198	2.047	1113	27.262	2.93	750	2.52	1.46	0	1	T1/T3	0.324	0.9	0.291	1.06	0.344	1.81	0.556	0.412	4.48	19	18.2	19.645	19.152	19.989	20.778	0.789	12/H01
10%	13/H01	0																			MH1500				6.26	197	2.149	1171	14.923	0.54	900	1.84	1.42	0	1	T3/T6	0.173	1.82	0.314	2.18	0.377	0.65	0.081	0.657	2.35	18.18	18.1	18.838	18.741	19.214	19.746	0.532	13/H01
10%	OUT/H01																				HW outlet																										18.741	19.55		OUT/H01
10%	G1/H02	85	0.9	0.64	10	168	0.125	0.107	50	5	207	0.116	0.101	58	58	2.484	0.08	0.05	0.82	3	GULLY MK-S	58	0	G1/H04	5	207	0.101	58	17.851	1.4	375	0.53	1.37	1		G2	0.014	9.7	0.137		0.137	0.72	0.176	0.136	1.61	24.45	24.2	24.625	24.497	24.762	25.761	0.999	G1/H02
10%	G1/H03	85	0.9	0.64	10	168	0.082	0.07	33	5	207	0.075	0.066	38	38	2.115	0.07	0.04	0.8	3	GULLY MK-S	38	0	G1/H05	5	207	0.066	38	15.375	1.63	375	0.34	1.11	1		G1	0.006	7	0.042		0.042	0.61	0.137	0.105	1.51	24.45	24.2	24.59	24.497	24.632	25.762	1.13	G1/H03
10%	G1/H04	85	0.9	0.64	10	168	0.089	0.076	36	5	207	0.082	0.072	41	106	2.806	0.089	0.08	1.48	3.07	GULLY MK-S	93	13	G1/H06	5	207	0.072	93	2.499	2.4	375	0.84	1.78	1		G2	0.036	8.16	0.294		0.294	0.21	0.006	0.151	2.23	24.06	24	24.418	24.412	24.712	25.449	0.737	G1/H04
10%	G1/H05	85	0.9	0.64	10	168	0.085	0.073	34	5	207	0.079	0.069	40	40	1.729	0.059	0.05	2.6	3	GULLY MK-S	40	0	G1/H08	5	207	0.069	40	12.601	2.22	375	0.36	1.17	1		G2	0.007	9.7	0.063		0.063	0.04	0.006	0.099	1.71	23.5	23.22	23.835	23.829	23.898	24.835	0.937	G1/H05
10%	G1/H06	85	0.9	0.64	10	168	0.213	0.183	85	5	207	0.197	0.172	99	112	2.603	0.083	0.1	2.59	3	GULLY MK-S	95	17	G1/H07	5	207	0.172	95	2.397	3.34	375	0.86	2.28	1		G2	0.038	5.81	0.22		0.22	0.29	0.007	0.14	2.53	23.2	23.12	23.836	23.829	24.057	24.573	0.516	G1/H06
10%	G1/H07	85	0.9	0.64	10	168	0.134	0.115	54	5	207	0.124	0.108	62	79	2.526	0.081	0.07	1.48	3	GULLY MK-S	76	3	G1/H10	5	207	0.108	76	2.478	4.44	375	0.69	2.54	1		G2	0.024	4.82	0.116		0.116	0.19	0.005	0.115	2.63	22.53	22.42	23.366	23.362	23.482	23.927	0.445	G1/H07
10%	G1/H08	85	0.9	0.64	10	168	0.178	0.153	71	5	207	0.165	0.144	83	83	2.573	0.082	0.07	1.48	0.63	GULLY MK-S	74	9	G2/H09	5	207	0.144	74	7.375	1.22	375	0.67	2.31	1		G2	0.023	5.7	0.132		0.132	0.18	0.013	0.161	1.64	22.64	22.55	23.375	23.362	23.506	23.969	0.462	G1/H08
10%	G1/H09	85	0.9	0.64	10	168	0.215	0.184	86	5	207	0.199	0.174	100	100	4.192	0.095	0.05	0.6	1.05	GULLY MK-M	94	6	G1/H12	5	207	0.174	94	9.159	0.87	450	0.59	2.13	1		G2	0.018	6.47	0.116		0.116	0.11	0.01	0.185	1.53	22.35	22.27	23.192	23.182	23.307	23.654	0.347	G1/H09
10%	G2/H09	85	0.9	0.64	10	168	0.181	0.155	72	5	207	0.168	0.147	84	93		0.069		0.84	2.67	SAG MK-S	93	0	G1/H12	5.09	206	0.32	187	15.194	0.86	525	0.86	1.8	0.5	0.86	T9/T10	0.038	2.14	0.081	2.52	0.095	0.19	0.029	0.253	1.81	22.25	22.12	23.1	23.072	23.196	23.603	0.407	G2/H09
10%	G1/H10	85	0.9	0.64	10	168	0.091	0.078	36	5	207	0.084	0.073	42	45	2.04	0.068	0.05	1.48	3	GULLY MK-S	45	0	G1/H11	5	207	0.073	45	2.477	4.04	375	0.41	1.22	1		G2	0.009	9.7	0.084		0.084	-0.57	0.029	0.091	2.2	22.1	22	22.254	22.268	22.338	23.412	1.074	G1/H10
10%	G1/H11	85	0.9	0.64	10	168	0.134	0.115	54	5	207	0.124	0.108	62	62	2.305	0.075	0.06	1.48	3	GULLY MK-S	62	0	G1/H15	5	207	0.108	62	2.491	4.02	375	0.56	1.42	1		G2	0.016	9.7	0.158		0.158	0.11	0.003	0.107	2.4	21.6	21.5	21.973	21.97	22.131	22.904	0.773	G1/H11
10%	G1/H12	85	0.9	0.64	10	168	0.054	0.046	22	5	207	0.05	0.044	25	31	1.751	0.06	0.04	1.48	3	GULLY MK-S	31	0	G1/H13	5	207	0.044	31	6.347	2.36	375	0.28	1.1	1		G2	0.004	9.7	0.039		0.039	0.02	0.002	0.086	1.62	21.6	21.45	21.972	21.97	22.011	22.902	0.891	G1/H12
10%	G1/H13	85	0.9	0.64	10	168	0.219	0.188	88	5	207	0.203	0.178	102	102		0.076		0.29	2.98	SAG MK-S	102	0	G1/H16	5	207	0.178	102	2.297	3.48	375	0.92	2.1	1		G2	0.044	6.59	0.287		0.287	0.34	0.008	0.144	2.62	21.3	21.22	21.8	21.792	22.087	22.618	0.531	G1/H13
10%	2/H13	0																			MH1050				5.01	207	0.204	117	12.94	2.94	375	1.06	1.63	0	1	T6/T9	0.057	2.18	0.125	2.48	0.142	0.45	0.058	0.163	2.55	21.2	20.82	21.667	21.609	21.809	22.642	0.832	2/H13
10%	G1/H14	85	0.9	0.64	10	168	0.033	0.028	13	5	207	0.03	0.027	15	15	1.772	0.06	0.02	0.52	1.76	GULLY MK-S	15	0	G1/H16	5	207	0.027	15	7.219	1.11	375	0.14	1.34	1		G2	0.001	9.7	0.01		0.01	0.01	0.001	0.073	1.01	21.3	21.22	21.793	21.792	21.802	22.625	0.822	G1/H14
10%	G1/H15	85	0.9	0.64	10	168	0.133	0.114	53	5	207	0.123	0.107	62	62	1.713	0.064	0.08	4.88	3.13	GULLY MK-S	57	5	G1/H17	5	207	0.107	57	2.297	3.05	375	0.51	1.75	1		G2	0.013	8.37	0.113		0.113	0.1	0.002	0.109	2.12	21.07	21	21.612	21.609	21.725	22.34	0.615	G1/H15
10%	G1/H16	85	0.9	0.64	10	168	0.148	0.127	59	5	207	0.137	0.12	69	69	1.997	0.066	0.08	6.77	3	GULLY MK-S	59	10	G2/H18	5	207	0.12	59	11.042	3.62	375	0.54	1.38	1		G2	0.015	9.7	0.142		0.142	-0.08	0.013	0.107	2.28	19.7	19.3	19.926	19.935	20.068	21.063	0.995	G1/H16
10%	G1/H17	85	0.9	0.64	10	168	0.161	0.138	65	5	207	0.149	0.131	75	80	2.118	0.07	0.09	3.79	3	GULLY MK-S	68	12	G1/H20	5	207	0.131	68	3.367	4.75	375	0.61	1.72	1		G2	0.019	8.52	0.164		0.164	0.15	0.005	0.107	2.61	19.46	19.3	19.94	19.935	20.104	20.811	0.707	G1/H17
10%	G1/H18	85	0.9	0.64	10	168	0.003	0.003	1	5	207	0.003	0.002	1	1	1.384	0.006	0	0.5	3	GULLY BK-S	1	0	G1/H19	5	207	0.002	1	8.565	0.66	375	0.01	1.83	1		G2	0	7.91	0		0	0	0	0.027	0.42	19.26	19.2	19.947	19.947	19.947	20.431	0.484	G1/H18
10%	G2/H18	85	0.9	0.64	10	168	0.023	0.019	9	5	207	0.021	0.018	10	20	1.834	0.062	0.03	0.5	3	GULLY MK-S	20	0	G1/H18	5	207	0.021	22	22.616	0.71	375	0.19	2.05	0.93	1	G1/T10	0.002	4.33	0.008	4.4	0.009	0.02	0.003	0.097	0.95	19.18	19.02	19.939	19.935	19.947	20.43	0.483	G2/H18
10%	G1/H19	85	0.9	0.64	10	168	0.015	0.013	6	5	207	0.014	0.012	7	7	0.42	0.045	0.04	3.79	3	GULLY MK-S	7	0	F1/H21	5	207	0.012	7	6.268	2.39	375	0.06	2.14	1		G2	0	6.4	0.001		0.001	0	0	0.042	1.05	18.35	18.2	19.152	19.152	19.154	19.693	0.54	G1/H19
10%	G1/H20	85	0.9	0.64	10	168	0.109	0.094	44	5	207	0.101	0.088	51	63	1.914	0.066	0.08	3.79	3	GULLY MK-S	58	5	F1/H21	5	207	0.088	58	2.297	2.61	375	0.52	2.33	1		G2	0.014	5.63	0.078		0.078	0.11	0.002	0.115	2.01	18.36	18.3	19.155	19.152	19.233	19.692	0.46	G1/H20
10%	F1/H21	0					0	0	0			0	0	0	277		0.2				RSIP-9x9	267	10	LOST	1	286	0	267	29.214	1.03	450	1.68	2.54	1		G2	0.144	4.82	0.692		0.692	0.73	0.262	0.341	2.06	16.5	16.2	16.863	16.65	17.555	18.5	0.945	F1/H21
10%	OUT/H21																				HW outlet																										16.65	17.212		OUT/H21

STORMWATER DRAINAGE CALCULATIONS - MINOR 10% AEP

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: STORMWATER CALCULATION TABLES SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1430	B

Moreton Bay Regional Council

	LOCATION	CATCHMENT PROPERTIES			FULL AREA RUNOFF					PART AREA RUNOFF					INLET DESIGN										DRAIN DESIGN								HEADLOSSES								PART FULL		DESIGN LEVELS								
		fi	Ci	Cp	tc	I	A	CA	Q	tc	I	A	CA	Q	Qa						Qg	Qb		tc	I	CA	Qp	L	S		Vf	S/Do	Qg/Qo	Du/Do		Vf2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn									
DESIGN ARI	STRUCTURE No.	FRACTION IMPERVIOUS	COEFFICIENT OF RUNOFF IMPERVIOUS AREA	COEFFICIENT OF RUNOFF PERVIOUS AREA	TIME OF CONCENTRATION	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	TIME OF CONCENTRATION	RAINFALL INTENSITY	PARTIAL CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C(INC. BYPASS)	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C.x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	FULL PIPE VELOCITY	SUBMERGENCE RATIO	GRATE FLOW RATIO	DIAMETER RATIO	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
Yrs					min	mm/h	ha	ha	L/s	min	mm/h	ha	ha	L/s	L/s	m	m		%	%		L/s	L/s		min	mm/hr	ha	L/s	m	%	mm	m/s					m		m		m	%	m	m	m/s	m	m	m	m	m	m	m	
1%	F1/H01	85	1	0.77	10	294	0.08	0.077	63	5	370	0.074	0.072	74	74	3.08	0.046	0.05	3.77	3	F1-6x9 on-grade 50% Blockage	16	58	F2/H01	5	370	0.072	16	18.7	3.96	375	0.15	1.02	1		G1	0.001	7	0.008		0.008	3.73	0.718	0.055	1.62	25.76	25.02	25.851	25.154	25.859	27.099	1.24	F1/H01
1%	F2/H01	85	1	0.77	10	294	0.071	0.068	56	5	370	0.065	0.064	66	124	3.726	0.056	0.07	3.77	3	F1-6x9 on-grade 50% Blockage	21	102	F3/H01	5.1	368	0.137	37	17.795	3.37	375	0.34	1.04	0.57	1	G1/T1/T3	0.006	2.62	0.015	2.78	0.016	0.73	0.176	0.086	1.95	25	24.4	25.139	25.008	25.155	26.394	1.238	F2/H01
1%	F3/H01	85	1	0.77	10	294	0.072	0.069	56	5	370	0.066	0.065	67	169		0.03		3.77		FSIP-6x9	13	156	G1/H04	5.2	367	0.202	49	7.506	4	375	0.45	1.69	0.26	1	T3	0.01	1.75	0.018	2.16	0.022	0.08	0.006	0.095	2.24	24.38	24.08	24.991	24.985	25.013	25.713	0.7	F3/H01
1%	4/H01	0																			MH1200				5.24	366	0.39	211	8.203	2.25	450	1.33	2.11	0	1	T6/T9	0.09	1.91	0.171	2.17	0.195	0.55	0.045	0.223	2.68	24.06	23.876	24.813	24.768	25.008	25.618	0.61	4/H01
1%	5/H01	0																			MH1050				5.29	365	0.471	291	36.061	2.37	450	1.83	2.04	0	1	T3/T6	0.17	1.76	0.301	1.91	0.326	1.04	0.375	0.267	2.95	23.876	23.02	24.467	24.093	24.793	25.487	0.694	5/H01
1%	6/H01	0																			MH1200				5.43	363	0.741	433	33.577	2.03	525	2	2.15	0	1	T1/T3	0.204	1.28	0.261	1.45	0.296	1.01	0.34	0.326	3.07	23	22.32	23.832	23.492	24.128	24.609	0.481	6/H01
1%	7/H01	0																			MH1200				5.62	360	1.026	552	11.188	1.61	600	1.95	2.03	0	1	T1/T3	0.195	1.04	0.203	1.18	0.229	0.81	0.09	0.373	2.99	22.3	22.12	23.289	23.199	23.518	23.967	0.448	7/H01
1%	8/H01	0																			MH1200				5.68	359	1.387	606	23.517	1.62	600	2.14	1.87	0	1	T1/T3	0.234	0.69	0.16	0.77	0.181	0.97	0.229	0.397	3.05	22.1	21.72	23.038	22.81	23.22	23.801	0.581	8/H01
1%	9/H01	0																			MH1050				5.82	357	1.47	728	34.329	1.4	750	1.65	1.51	0	0.94	T1/T3	0.139	0.88	0.122	1.04	0.145	0.43	0.147	0.398	3.05	21.7	21.22	22.687	22.541	22.832	23.452	0.62	9/H01
1%	10/H01	0																			MH1200				5.99	355	1.641	970	23.943	2.42	750	2.2	1.87	0	1	T3/T6	0.246	1.66	0.408	1.9	0.469	0.76	0.182	0.401	4.03	21.2	20.62	22.133	21.951	22.602	22.943	0.341	10/H01
1%	11/H01	0																			MH1350				6.1	353	1.995	1270	43.288	3.65	750	2.87	2.02	0	1	T3/T6	0.421	1.6	0.675	1.81	0.762	2.1	0.958	0.417	5.03	20.6	19.02	21.276	20.365	22.038	22.399	0.362	11/H01
1%	12/H01	0																			MH1800				6.16	352	2.296	1676	27.262	2.93	750	3.79	1.91	0	1	T1/T3	0.381	1.16	0.443	1.33	0.508	1.18	0.321	0.545	4.87	19	18.2	19.922	19.601	20.43	20.778	0.349	12/H01
1%	13/H01	0																			MH1500				6.19	352	2.403	1819	14.923	0.54	900	2.86	1.74	0	1	T3/T6	0.328	1.75	0.573	2.03	0.664	0.96	0.104	0.9	2.86	18.18	18.1	19.028	18.884	19.692	19.746	0.054	13/H01
1%	OUT/H01																				HW outlet																										18.884	19.55		OUT/H01
1%	G1/H02	85	1	0.77	10	294	0.125	0.121	98	5	370	0.116	0.113	116	116	3.24	0.101	0.08	0.82	3	GULLY MK-S	90	26	G1/H04	5	370	0.113	90	17.851	1.4	375	0.81	2.13	1		G2	0.034	6.44	0.218		0.218	0.26	0.047	0.173	1.81	24.45	24.2	25.032	24.985	25.25	25.761	0.512	G1/H02
1%	G1/H03	85	1	0.77	10	294	0.082	0.079	64	5	370	0.075	0.074	76	76	2.764	0.088	0.06	0.8	3	GULLY MK-S	74	2	G1/H05	5	370	0.074	74	15.375	1.63	375	0.67	1.83	1		G1	0.023	5.53	0.126		0.126	0.18	0.027	0.148	1.82	24.45	24.2	25.012	24.985	25.138	25.762	0.624	G1/H03
1%	G1/H04	85	1	0.77	10	294	0.089	0.086	70	5	370	0.082	0.081	83	266	4.826	0.124	0.14	1.48	3.07	GULLY MK-S	81	185	G1/H06	5	370	0.081	81	2.499	2.4	375	0.73	2.32	1		G2	0.027	5.67	0.156		0.156	0.21	0.005	0.14	2.15	24.06	24	24.773	24.768	24.929	25.449	0.52	G1/H04
1%	G1/H05	85	1	0.77	10	294	0.085	0.082	67	5	370	0.079	0.077	79	81	2.292	0.074	0.08	2.6	3	GULLY MK-S	77	5	G1/H08	5	370	0.077	77	12.601	2.22	375	0.7	2.08	1		G2	0.025	6.65	0.164		0.164	0.19	0.024	0.139	2.06	23.5	23.22	24.117	24.093	24.281	24.835	0.554	G1/H05
1%	G1/H06	85	1	0.77	10	294	0.213	0.206	168	5	370	0.197	0.193	199	383	5.177	0.129	0.19	2.59	3	GULLY MK-S	73	310	G1/H07	5	370	0.193	73	2.397	3.34	375	0.66	2.66	1		G2	0.022	4.54	0.101		0.101	0.17	0.004	0.122	2.35	23.2	23.12	24.097	24.093	24.198	24.573	0.374	G1/H06
1%	G1/H07	85	1	0.77	10	294	0.134	0.129	105	5	370	0.124	0.121	125	435	5.922	0.145	0.18	1.48	3	GULLY MK-S	62	373	G1/H10	5	370	0.121	62	2.478	4.44	375	0.56	2.76	1		G2	0.016	4.33	0.069		0.069	0.12	0.003	0.104	2.48	22.53	22.42	23.495	23.492	23.565	23.927	0.363	G1/H07
1%	G1/H08	85	1	0.77	10	294	0.178	0.172	140	5	370	0.165	0.162	166	171	3.464	0.105	0.11	1.48	0.63	GULLY MK-S	69	101	G2/H09	5	370	0.162	69	7.375	1.22	375	0.63	2.56	1		G2	0.02	4.77	0.095		0.095	0.16	0.011	0.155	1.61	22.64	22.55	23.504	23.492	23.599	23.969	0.37	G1/H08
1%	G1/H09	85	1	0.77	10	294	0.215	0.207	169	5	370	0.199	0.195	200	200	4.898	0.119	0.08	0.6	1.05	GULLY MK-M	74	125	G1/H12	5	370	0.195	74	9.159	0.87	450	0.47	2.9	1		G2	0.011	4.02	0.045		0.045	0.07	0.006	0.163	1.44	22.35	22.27	23.61	23.603	23.654	23.654	0	G1/H09
1%	G2/H09	85	1	0.77	10	294	0.181	0.175	143	5	370	0.168	0.164	169	270		0.13		0.84	2.67	SAG MK-S	-10	280	G1/H12	5.09	368	0.359	63	15.194	0.86	525	0.29	1.83	0	0.86	T9/T10	0.004	2.03	0.009	2.57	0.011	0.02	0.003	0.142	1.34	22.25	22.12	23.202	23.199	23.213	23.603	0.39	G2/H09
1%	G1/H10	85	1	0.77	10	294	0.091	0.088	72	5	370	0.084	0.082	85	457	6.01	0.147	0.18	1.48	3	GULLY MK-S	133	324	G1/H11	5	370	0.082	133	2.477	4.04	375	1.2	2.78	1		G2	0.074	4.29	0.317		0.317	0.57	0.014	0.16	2.97	22.1	22	22.824	22.81	23.141	23.412	0.271	G1/H10
1%	G1/H11	85	1	0.77	10	294	0.134	0.129	106	5	370	0.124	0.122	125	449	5.979	0.146	0.18	1.48	3	GULLY MK-S	129	320	G1/H15	5	370	0.122	129	2.491	4.02	375	1.17	3.21	1		G2	0.07	3.57	0.25		0.25	0.54	0.014	0.157	2.94	21.6	21.5	22.554	22.541	22.804	22.904	0.1	G1/H11
1%	G1/H12	85	1	0.77	10	294	0.054	0.052	43	5	370	0.05	0.049	50	456	6.005	0.147	0.18	1.48	3	GULLY MK-S	130	327	G1/H13	5	370	0.049	130	6.347	2.36	375	1.17	3.26	1		G2	0.07	3.52	0.247		0.247	0.55	0.035	0.183	2.42	21.6	21.45	22.575	22.541	22.822	22.902	0.08	G1/H12
1%	G1/H13	85	1	0.77	10	294	0.219	0.212	173	5	370	0.203	0.199	204	531		0.13		0.29	2.98	SAG MK-S	127	404	G1/H16	5	370	0.199	127	2.297	3.48	375	1.15	3.18	1		G2	0.067	3.6	0.242		0.242	0.52	0.012	0.162	2.77	21.3	21.22	22.251	22.239	22.493	22.618	0.125	G1/H13
1%	2/H13	0																			MH1050				5.01	369	0.229	157	12.94	2.94	375	1.42	2.82	0	1	T6/T9	0.103	1.78	0.184	1.95	0.201	0.8	0.104	0.192	2.75	21.2	20.82	22.055	21.951	22.257	22.642	0.385	2/H13
1%	G1/H14	85	1	0.77	10	294	0.033	0.032	26	5	370	0.03	0.03	31	31	2.323	0.075	0.03	0.52	1.76	GULLY MK-S	31	0	G1/H16	5	370	0.03	31	7.219	1.11	375	0.28	2.56	1		G2	0.004	4.77	0.019		0.019	0.03	0.002	0.103	1.24	21.3	21.22	22.241	22.239	22.26	22.625	0.365	G1/H14
1%	G1/H15	85	1	0.77	10	294	0.133	0.128	105	5	370	0.123	0.121	124	444	4.702	0.128	0.24	4.88	3.13	GULLY MK-S	161	283	G1/H17	5	370	0.121	161	2.297	3.05	375	1.45	3.38	1		G2	0.108	3.39	0.366		0.366	0.84	0.019	0.193	2.8	21.07	21	21.971	21.951	22.337	22.34	0.003	G1/H15
1%	G1/H16	85	1	0.77	10	294	0.148	0.143	117	5	370	0.137	0.134	138	542	5.523	0.135	0.25	6.77	3	GULLY MK-S	193	349	G2/H18	5	370	0.134	193	11.042	3.62	375	1.75	3.49	1		G2	0.156	3.27	0.51		0.51	1.21	0.134	0.205	3.13	19.7	19.3	20.499	20.365	21.008	21.063	0.054	G1/H16
1%	G1/H17	85	1	0.77	10	294	0.161	0.156	127	5	370	0.149	0.146	150	433	4.939	0.125	0.22	3.79	3	GULLY MK-S	177	257	G1/H20	5	370	0.146	177	3.367	4.75	375	1.6	3.6	1		G2	0.131	3.15	0.412		0.412	1.02	0.034	0.179	3.39	19.46	19.3	20.399	20.365	20.811	20.811	0.001	G1/H17
1%	G1/H18	85	1	0.77	10	294	0.003	0.003	2	5	370	0.003	0.003	3	322	8.305	0.065	0.07	0.5	3	GULLY BK-S	8	313	G1/H19	5	370	0.003	8	8.565	0.66	375	0.08	3.12	1		G2	0	3.67	0.001		0.001	0	0	0.062	0.71	19.26	19.2	20.428	20.428	20.429	20.431	0.001	G1/H18
1%	G2/H18	85	1	0.77	10	294	0.023	0.022	18	5	370	0.021	0.02	21	370	6.621	0.162	0.13	0.5	3	GULLY MK-S	51	319	G1/H18	5	370	0.023	59	22.616	0.71	375	0.54	3.33	0.86	1	G1/T10	0.015	2.51	0.037	2.61	0.039	0.11	0.026	0.166	1.26	19.18	19.02	20.391	20.365	20.429	20.43	0	G2/H18
1%	G1/H19	85	1	0.77	10	294	0.015	0.015	12	5	370	0.014	0.014	14	328	3.553	0.134	0.24	3.79	3	GULLY MK-S	78	250	F1/H21	5	370	0.014	78	6.268	2.39	375	0.7	3.58	1		G2	0.025	3.17	0.08		0.08	0.2	0.012	0.137	2.12	18.35	18.2	19.613	19.601	19.693	19.693	0	G1/H19
1%	G1/H20	85	1	0.77	10	294	0.109	0.105	86	5	370	0.101	0.099	102	358	4.21	0.118	0.2	3.79	3	GULLY MK-S	80	278	F1/H21	5	370	0.099	80	2.297	2.61	375	0.73	3.55	1		G2	0.027	3.2	0.086		0.086	0.21	0.005	0.137	2.21	18.36	18.3	19.606	19.601	19.692	19.692	0	G1/H20
1%	F1/H21	0					0	0	0			0	0	0	800		0.2				RSIP-9x9	267	533	LOST	1	506	0	267	29.214	1.03	450	1.68	2.94	1		G2	0.144	3.94	0.566		0.566	0.88	0.256	0.341	2.06	16.5	16.2	17.256	17	17.822	18.5	0.678	F1/H21
1%	OUT/H21																				HW outlet																										17	17.212		OUT/H21

STORMWATER DRAINAGE CALCULATIONS - MAJOR 1% AEP

(INCLUDING 20% ABOVE STANDARD 1% AEP INTENTIES FOR CLIMATE CHANGE)

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: AA

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

Ryan Ashworth

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE

CLIENT: FOREVERLEN PTY LTD

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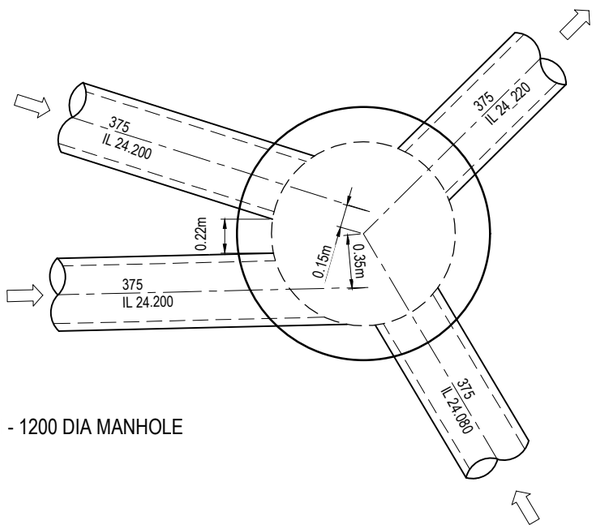
PROJECT: Lilywood LANDINGS

STAGE 23

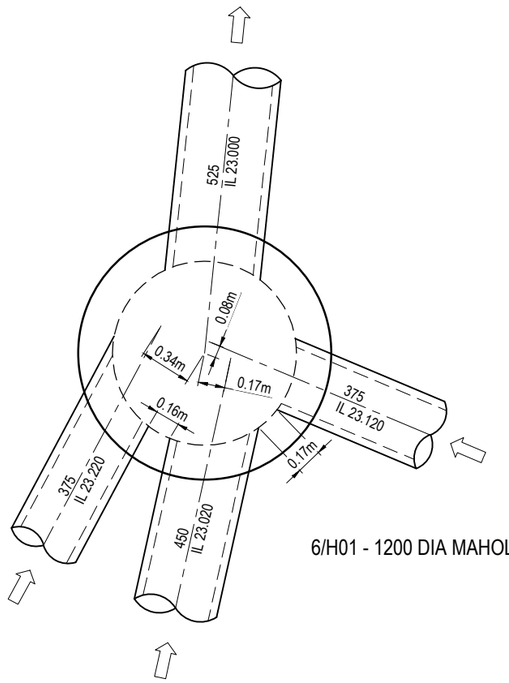
DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: STORMWATER CALCULATION TABLES SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1431	B



4/H01 - 1200 DIA MANHOLE



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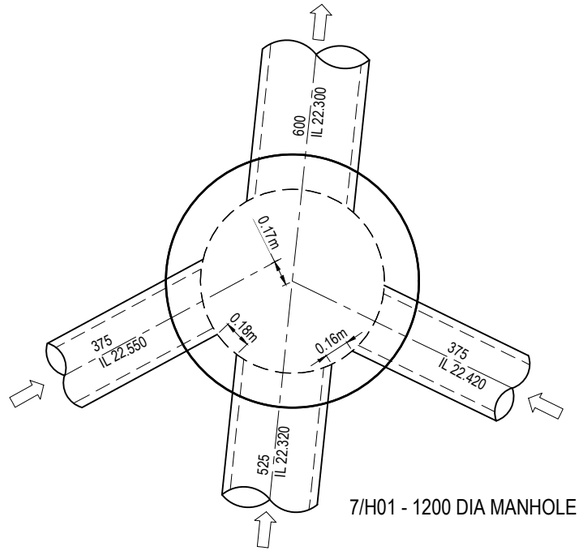
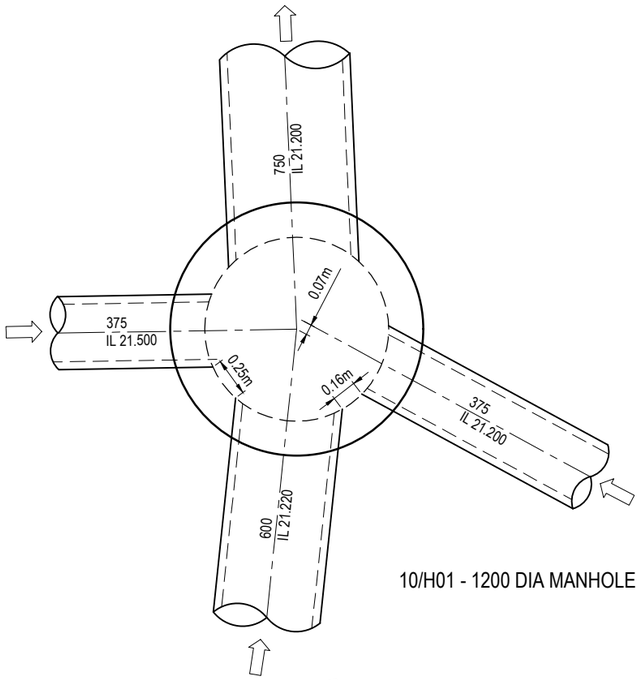
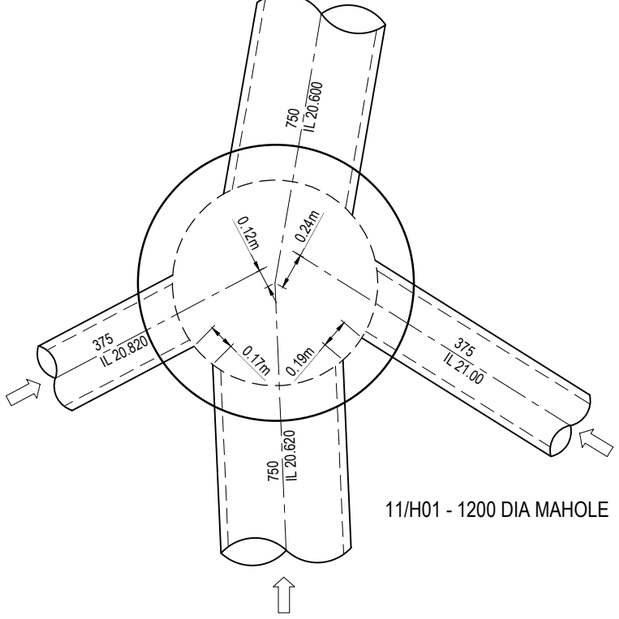


7/H01 - 1200 DIA MANHOLE



10/H01 - 1200 DIA MANHOLE



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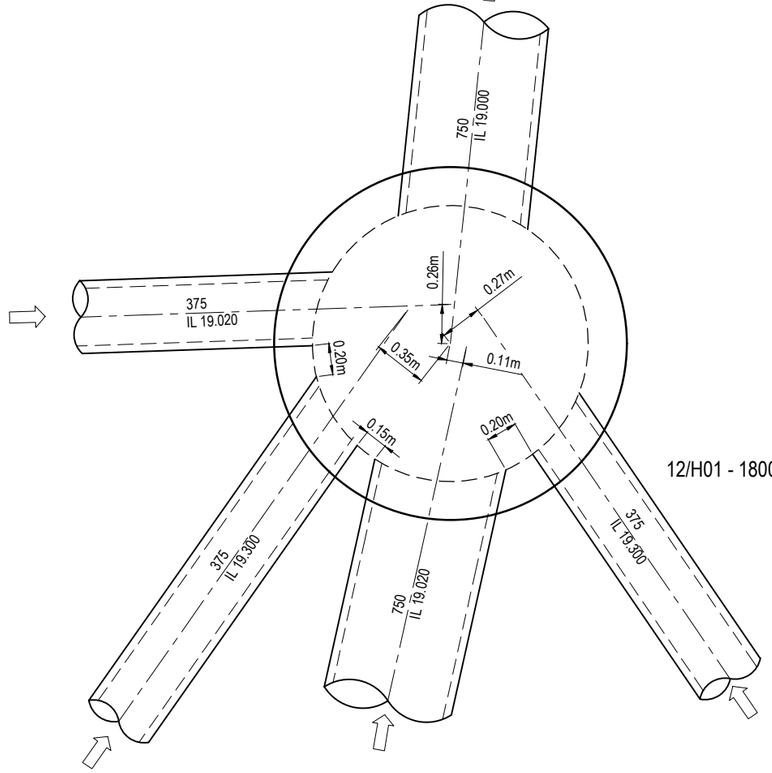
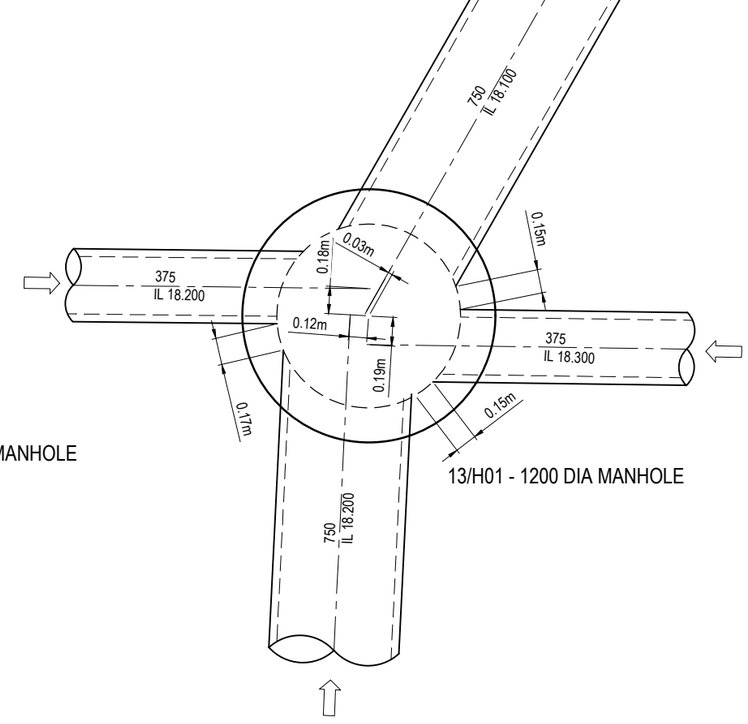


12/H01 - 1800 DIA MANHOLE



13/H01 - 1200 DIA MANHOLE

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa

DESIGN CHECK: MA

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674

Ryan Ashworth

FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:20 0.2 0 0.2 0.4 0.6 0.8 1m A1; 1:40 A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

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PROJECT: Lilywood LANDINGS

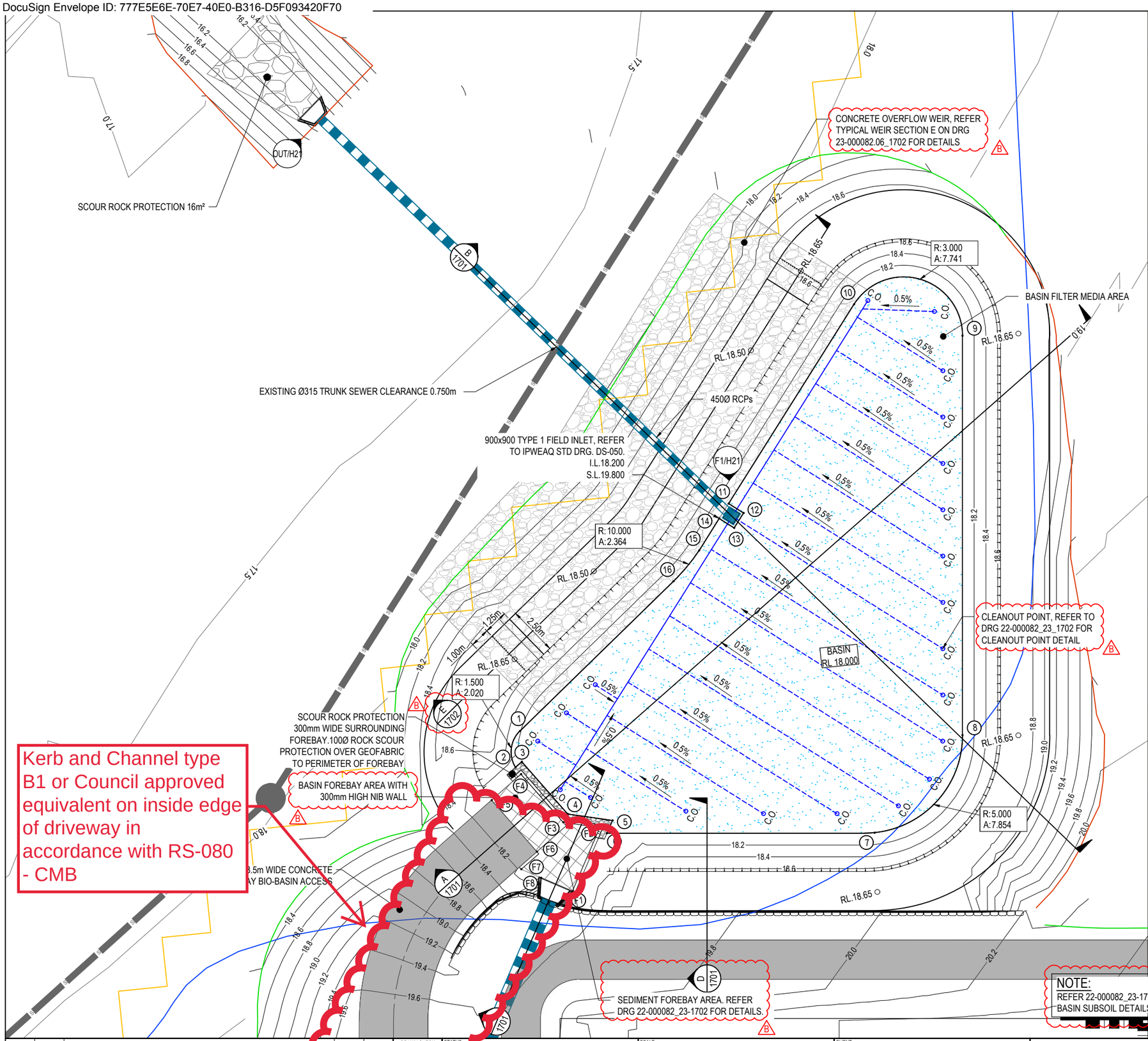
STAGE 23

DISCLAIMER: ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: STORMWATER STRUCTURES DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1440	B

Moreton Bay Regional Council



LEGEND

- WORKS BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- FIELD INLET
- CONCRETE FOOTPATH
- PROPOSED KERB
- 66.0 — DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING STORMWATER STRUCTURE
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- CONCRETE DRIVEWAY
- BIO-BASIN FOREBAY AREA
- BIO-RETENTION BASIN FILTER MEDIA
- SCOUR PROTECTION
- 100Ø SLOTTED AGI DRAIN, 0.5% MIN GRADE TO OUTLET PIT AS SHOWN.
- 150Ø UN-SLOTTED AGI DRAIN, 0.5% MIN GRADE TO OUTLET PIT AS SHOWN.
- C.O. — CLEANOUT POINT
- 01 — SETOUT POINT
- PROPOSED BATTERS
- PROPOSED WATER MAIN
- PROPOSED SEWERAGE RETICULATION
- ST — EXISTING TRUNK SEWER

BIO-RETENTION BASIN G1 DETAILS

PARAMETER	BASIN
FILTER SURFACE AREA (m²)	393
FILTER SURFACE LEVEL (m)	18.00
TEMPORARY PONDING DEPTH (mm)	300
STORAGE VOLUME (m³)	320
TOP OF EMBANKMENT (m)	18.65
EMERGENCY WEIR LEVEL (m)	18.50

BASIN G3 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
1	91149.247	502328.606	18.216
2	91148.825	502326.783	18.073
3	91149.173	502327.031	18.064
4	91151.235	502324.139	18.000
5	91153.472	502323.578	18.000
6	91153.125	502323.957	18.002
7	91166.710	502321.580	18.001
8	91171.683	502326.066	18.000
9	91173.778	502346.342	18.000
10	91168.431	502348.499	18.000
11	91161.033	502339.051	18.000
12	91161.741	502338.496	18.000
13	91161.186	502337.788	18.000
14	91160.478	502338.343	18.000
15	91159.285	502336.828	18.000
16	91157.817	502335.396	18.000

FOREBAY AREA SETOUT

POINT ID	EASTING	NORTHING	LEVEL
F1	91151.066	502220.192	18.100
F2	91152.793	502223.284	18.000
F3	91150.965	502223.743	18.038
F4	91149.068	502226.404	18.077
F5	91147.439	502225.242	18.100
F6	91149.472	502222.393	18.100
F7	91148.585	502221.577	18.100
F8	91149.548	502221.039	18.100

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK
A	07.06.23	ISSUED FOR APPROVAL	IB	AA	
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA	

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:100 / 1:200 — 1 0 1 2 3 4 5m — A1 / A3

CLIENT: FOREVERLEN PTY LTD — LENNIUM GROUP

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PROJECT: Lilywood LANDINGS — STAGE 23

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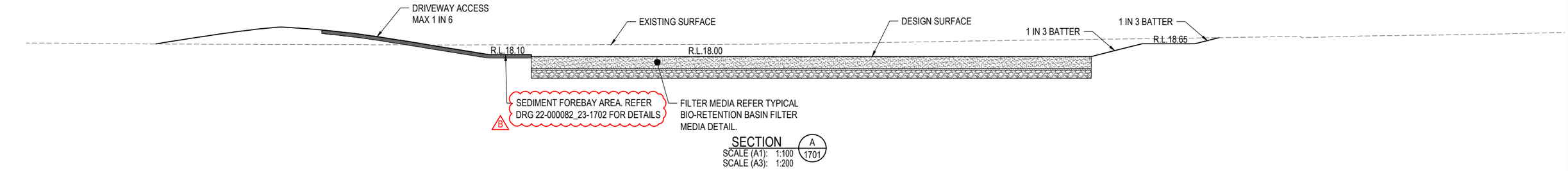
DRAWING TITLE: BIO-BASIN G3 LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1700	B

Moreton Bay Regional Council

Approved Subject to Conditions of Decision Notice DA/2023/3497

24/10/2023



SECTION A 1701
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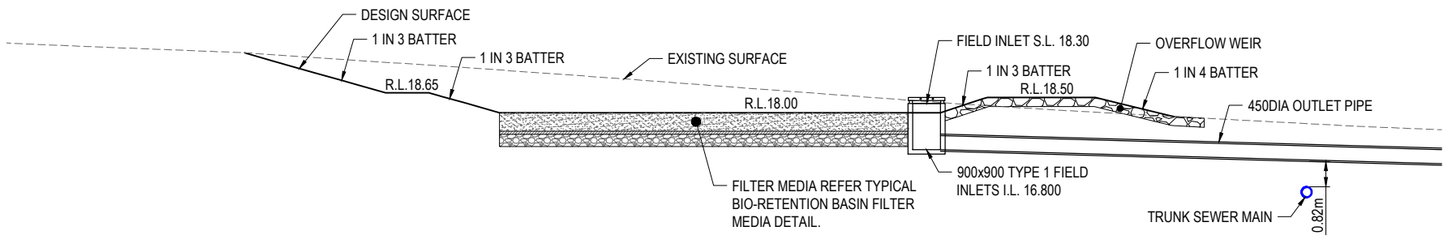

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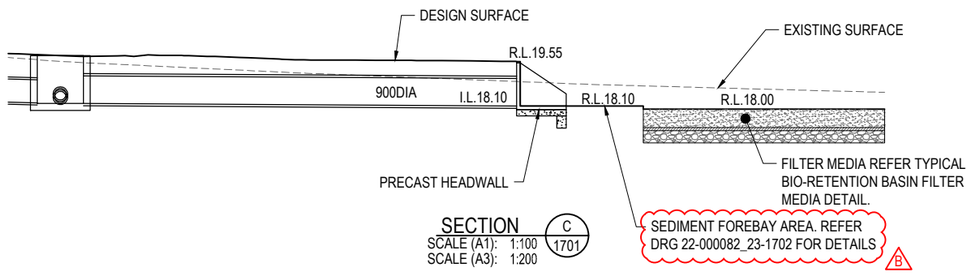

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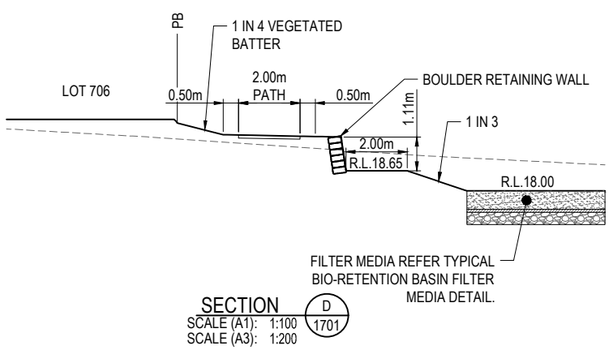

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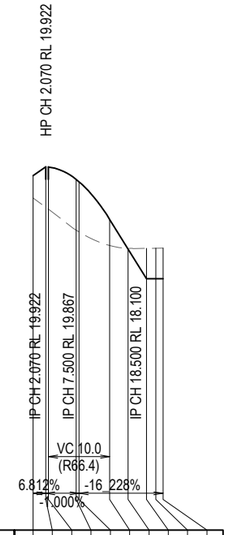

DATUM RL 14.0

CUT (-) / FILL	0.367	0.658	0.686	0.828	0.818	0.425	-0.012	-0.495	-0.497				
DESIGN SURFACE	19.781	19.922	19.917	19.719	19.679	19.224	18.583	18.100	18.100				
EXISTING SURFACE	19.414	19.263	19.231	18.891	18.861	18.639	18.594	18.595	18.597	18.598			
CHAINAGES	0.000	2.070	2.500	7.013	7.500	12.500	15.495	18.500	20.000	21.190			
HORIZONTAL CURVES	R10.000												

BASIN G3 ACCESS - LONGITUDINAL SECTION
HORIZ SCALE: 500
VERTICAL SCALE: 50

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	UPDATED TO EGIS	AA	AA

DRAWN CHECK: aa
DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE: 1:100 / 1:200 — 1 0 1 2 3 4 5m — A1 / A3

CLIENT: FOREVERLEN PTY LTD
LENNIUM GROUP

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PROJECT: Lilywood LANDINGS
STAGE 23

DISCLAIMER
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DRAWING TITLE: BIO-BASIN G3 SECTION PLAN

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1701	B

Moreton Bay Regional Council

BIO RETENTION PARTICLE SIZE DISTRIBUTION AND PROPERTIES GUIDE:

(SOURCE:BIOFILTRATION MEDIA GUIDELINES (VERSION 3.01), PREPARED BY THE FACILITY FOR ADVANCING WATER BIOFILTRATION (FAWB), JUNE 2009.)

MATERIAL COMPOSITION RANGE GUIDE:

CLAY AND SILT	<3%	(<0.05mm)
VERY FINE SAND	5-30%	(0.05-0.15mm)
FINE SAND	10-30%	(0.15-0.25mm)
MEDIUM TO COARSE SAND	40-60%	(0.25-1.0mm)
COARSE SAND	7-10%	(1.0-2.0mm)
FINE GRAVEL	<3.0%	(2.0-3.4mm)

IT IS ESSENTIAL THAT THE TOTAL CLAY AND SILT MIX IS LESS THAN 3% (w/w) TO REDUCE THE LIKELIHOOD OF STRUCTURAL COLLAPSE OF SUCH SOILS.

SOIL SPECIFICATIONS:

- TOTAL NITROGEN CONTENT - <1000mg/kg
- ORTHOPHOSPHATE CONTENT - <80mg/kg SOILS WITH TOTAL PHOSPHORUS CONCENTRATIONS >100mg/kg SHOULD BE TESTED FOR POTENTIAL LEACHING. WHERE PLANTS WITH MODERATE PHOSPHORUS SENSITIVITY ARE TO BE USED, TOTAL PHOSPHORUS CONCENTRATIONS SHOULD BE <20mg/kg)
- ORGANIC MATTER CONTENT - AT LEAST 3% (w/w). AN ORGANIC CONTENT LOWER THAN 3% IS LIKELY TO HAVE TOO LOW A WATER HOLDING CAPACITY TO SUPPORT HEALTHY PLANT GROWTH. IN ORDER TO COMPLY WITH BOTH THIS AND THE TOTAL NITROGEN AND ORTHOPHOSPHATE CONTENT REQUIREMENTS, A LOW NUTRIENT ORGANIC MATTER WILL BE REQUIRED.
- pH - AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS' 5.5-7.5 (pH 1:5 IN WATER)
- ELECTRICAL CONDUCTIVITY - AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS' <1.2 dS/m.

BIO RETENTION INSTALLATION STANDARD NOTES:

THE PLACEMENT OF DRAINAGE, TRANSITION AND FILTER MEDIA LAYERS MUST BE UNDERTAKEN CAREFULLY TO ENSURE CORRECT DEPTH, SLOPE AND COMPACTION:

DEPTH: FILTER MEDIA SHOULD BE INSTALLED AND COMPACTED IN TWO LIFTS FOR DEPTHS OVER 500mm.

SLOPE: THE TOP SURFACE OF THE DRAINAGE LAYER, TRANSITION LAYER AND FILTER MEDIA LAYER SHOULD BE FLAT. A SPREADER BAR SHOULD LEVEL THE SURFACE OF EACH LAYER.

COMPACTION: THE FILTER MEDIA MUST BE LIGHTLY COMPACTED DURING INSTALLATION TO PREVENT THE MIGRATION OF FINE PARTICLES. THIS CAN BE ACHIEVED WITH A SINGLE PASS OF A LIGHT ROLLER SUCH AS A DRUM LAWN ROLLER. A VIBRATING PLATE CAN ALSO BE USED TO COMPACT SMALL BIO RETENTION SYSTEMS OR 'POZITRACK' BOBCATS CAN BE USED FOR LARGE SYSTEMS. ENSURE ONLY ONE COMPACTING PASS IS MADE OVER THE MEDIA FOR LIGHT COMPACTION.

CONTRACTOR TO ENSURE BIOFILTRATION FILTER MEDIA MEETS THE CRITERIA OUTLINED IN THE MARCH 2008 VERSION OF THE GUIDELINE SPECIFICATION FOR SOIL MEDIA IN BIORETENTION SYSTEMS (VERSION 2.01), FACILITY FOR ADVANCING WATER BIOFILTRATION.

BIO-RETENTION/DETENTION BASINS CONSTRUCTION SEQUENCE AND NOTES:

1. ESTABLISH SEDIMENT AND EROSION CONTROL MEASURES IN CATCHMENT, INCLUDING SILT FENCES, SEEDING OF ALLOTMENTS, & FULL WIDTH VERGE TURFING.
2. SURVEY BASIN LOCATION.
3. INSTALL OVERFLOW PIT AND ENSURE PIT CREST IS AT DESIGN LEVEL. THIS PIT CREST WILL THEN BE USED AS A DATUM FROM WHICH OTHER LEVELS WITHIN THE BASIN WILL BE MEASURED. THE PIT REQUIRES HOLES FOR DRAINAGE PIPE CONNECTIONS WHICH CAN BE DRILLED AT THIS STAGE OR AFTER STEP 5 BELOW.
4. CONSTRUCT KERB TURNOUTS.
5. EXCAVATE SURROUNDING LANDFORM TO DESIGN SUBSOIL LEVEL (ACHIEVING SURROUNDING LEVEL AT THIS STAGE REDUCES THE NEED FOR EARTHWORKS ADJACENT TO THE BASIN AFTER THEY HAVE BEEN CONSTRUCTED).
6. EXCAVATE BASIN TO DESIGN DEPTH ENSURING BASE OF POD HAS MINIMUM 0.25% GRADE TOWARDS PIT. ENSURE BASE OF BASIN IS FREE FROM DEBRIS.

SUPERINTENDENT INSPECTION AND SIGN OFF REQUIRED BEFORE PROCEEDING.

7. LINE SYSTEM WITH GEOFABRIC, AND EXTEND GEOFABRIC A MINIMUM OF 500 MM BEYOND TOP OF EXCAVATION. THESE ARE THE FLAPS REFERRED TO IN ITEM 13 BELOW.
8. PLACE DRAINAGE LAYER (USING CLEAN 5-7mm AGGREGATE) TO DESIGN LEVEL.
9. NOTE THAT CORRECT FUNCTIONING OF THE DRAINAGE PIPES IS CRITICAL TO THE PERFORMANCE OF THE BIORETENTION SYSTEM. DIG TRENCHES IN DRAINAGE LAYER AND PLACE DRAINAGE PIPES. ENSURE PIPES ARE LAID AT MIN 0.5% SLOPE WITH NO LOCALIZED DEPRESSIONS VERIFIED USING LEVEL OR STRING LINE. ALL JOINTS AND JUNCTIONS IN PIPES TO BE SEALED. CONNECT CLEAN OUT POINTS ENSURING TOP OF CLEAN OUT POINTS ARE NOT LESS THAN 50mm BELOW OVERFLOW PIT CREST.

SUPERINTENDENT INSPECTION AND SIGN OFF REQUIRED BEFORE PROCEEDING.

10. COVER DRAINAGE PIPES WITH DRAINAGE MEDIA, ENSURING DESIGN COVER.
11. PLACE TRANSITION LAYER (USING ONLY PRESCRIBED DRAINAGE MATERIAL: 2.0mm SAND) TO DESIGN LEVEL (REFER DRAWINGS).

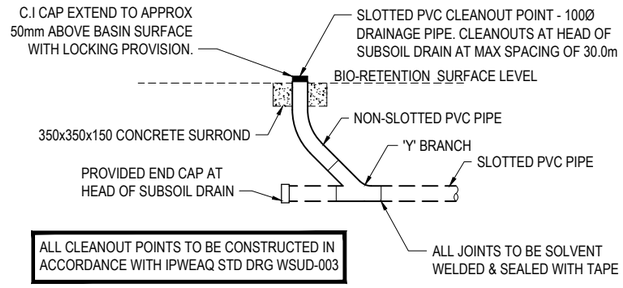
SUPERINTENDENT INSPECTION AND SIGN OFF REQUIRED BEFORE PROCEEDING.

12. PLACE FILTER MEDIA (USING ONLY PRESCRIBED MATERIAL: 0.7mm SAND) TO DESIGN LEVEL (REFER DRAWINGS). SPREAD MATERIAL USING EXCAVATOR BUCKET OR HAND TOOLS TO OBTAIN LIGHT AND EVEN COMPACTION OF FILTER MEDIA. DO NOT DRIVE OVER FILTER MEDIA WITH ANY VEHICLE AS EXCESSIVE COMPACTION CAN IMPEDE DRAINAGE THROUGH THE FILTER MEDIA. FILTER MEDIA SURFACE MUST BE LEVEL (HORIZONTAL) AND FREE FROM LOCAL DEPRESSIONS AND SET AT 100mm BELOW PIT CREST (EXCEPT FOREBAY AREA WHICH IS 200mm). AS SOON AS FILTER MEDIA IS PLACED IT MUST BE IMMEDIATELY COVERED WITH A GEOFABRIC COVER WHICH MUST REMAIN IN PLACE AT ALL TIMES EXCEPT WHEN ACCESS TO FILTER MEDIA IS REQUIRED.THIS PROTECTIVE COVER IS ONLY TO BE REMOVED BY LANDSCAPERS IMMEDIATELY PRIOR TO PLANTING.
13. LAY EXCESS GEOFABRIC FLAPS FROM BASIN OUTWARD ACROSS ADJACENT SUBSOIL AND PLACE LANDSCAPING TOPSOIL ON TOP OF THIS GEOFABRIC AND AROUND BASIN AS PER DESIGNS.
14. INSTALL PROTECTIVE PLYWOOD BARRIERS ENSURING THE CREST IS AT DESIGN LEVEL (MIN 100mm ABOVE ELEVATION OF PIT CREST) AND EXTENDS LATERALLY TO BASIN BATTERS BY 300mm, AND VERTICALLY INTO THE FILTER MEDIA BY 200mm. THIS PLYWOOD BARRIER NEEDS TO REMAIN IN PLACE FOR 12 MONTHS AND PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE MAJORITY FOR THE BASIN AREA. AFTER 12 MONTHS ONCE THE VEGETATION IS ESTABLISHED AND THE ALLOTMENT CONSTRUCTION IS COMPLETE THESE PLYWOOD BARRIERS WILL BE TAKEN OUT AND THE SYSTEM BROUGHT ONLINE.
15. COVER INLET ZONE WITH PROTECTIVE GEOFABRIC ENSURING GEOFABRIC EXTENDS OVER CREST OF PROTECTIVE PLYWOOD BARRIER. COVER GEOFABRIC WITH MIN 50mm TOPSOIL SUITABLE FOR TURF GROWTH. SIMILAR TO THE PLYWOOD BARRIERS, THIS GEOFABRIC IS A TEMPORARY PROTECTIVE MEASURE TO PROTECT THE FILTER MEDIA IN THE INLET ZONE FROM BEING CLOGGED WITH CONSTRUCTION SEDIMENT, AND WILL BE REMOVED AFTER 12 MONTHS.
16. FLUSH DRAINAGE PIPES TO REMOVE ANY INITIAL INGRESS OF MATERIAL AND TO ENSURE ADEQUATE DRAINAGE.

FINAL SUPERINTENDENT INSPECTION AND SIGN OFF

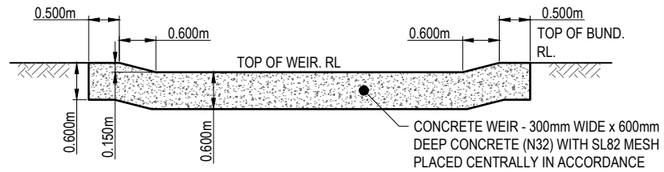
NOTE THAT BETWEEN STEPS 5 – 16 ABOVE THE BASINS WILL BE SUSCEPTIBLE TO STORM DAMAGE. THEREFORE ONCE COMMENCED PODS MUST BE COMPLETED AS SOON AS POSSIBLE TO MINIMISE THE RISK OF STORM DAMAGE.

INSPECTION IS REQUIRED IF RAINFALL EVENT OCCURS BETWEEN CONSTRUCTION STEPS 5 – 16 ABOVE.



CLEANOUT POINT DETAIL

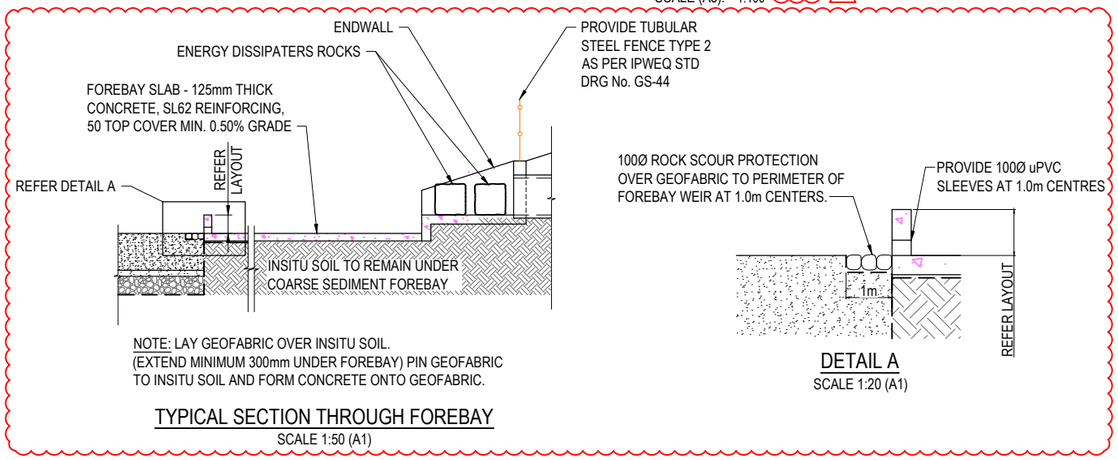
1:20



SECTION

SCALE (A1): 1:50
SCALE (A3): 1:100

E 1700 B



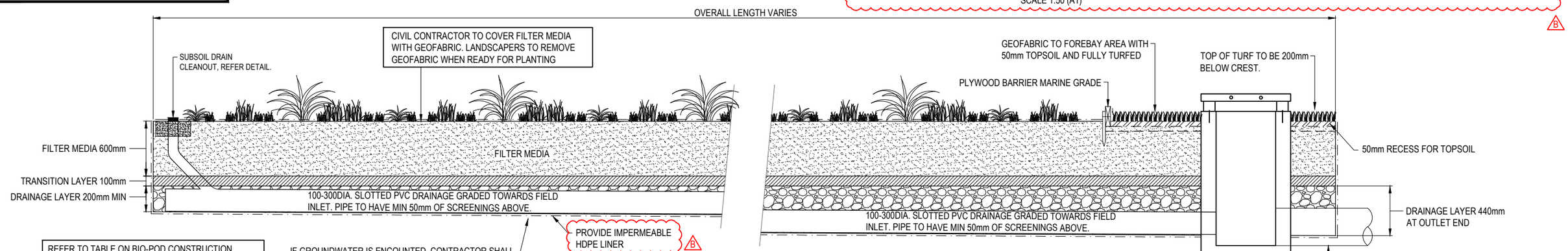
DETAIL A

SCALE 1:20 (A1)

TYPICAL SECTION THROUGH FOREBAY

SCALE 1:50 (A1)

B



TYPICAL BIO-RETENTION BASIN FILTER MEDIA DETAIL

1:20

REVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN
A	07.06.23	ISSUED FOR APPROVAL	IB	AA
B	12.10.23	REVISED AS PER COUNCIL RFI	AA	AA

DRAWN CHECK: AA

DESIGN CHECK: MH

STATUS: FOR APPROVAL

APPROVED: RYAN ASHWORTH RPEQ 19674
Ryan Ashworth
FOR & ON BEHALF OF CALIBRE PROFESSIONAL SERVICES PTY LTD

SCALE
1:20 0.2 0 0.2 0.4 0.6 0.8 1m A1
1:40 A3
1:50 1 0.5 0 1 2m A1
1:100 A3

CLIENT: FOREVERLEN PTY LTD

LENNIUM GROUP

egis

www.egis-group.com

PROJECT: Lilywood LANDINGS

STAGE 23

DISCLAIMER
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

DRAWING TITLE: BIO-BASIN NOTES AND DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_23	1702	B

Moreton Bay Regional Council

ATTACHMENT 4

Appeal Rights

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

(1) Schedule 1 states—

(a) matters that may be appealed to—

(i) either a tribunal or the P&E Court; or

(ii) only a tribunal; or

(iii) only the P&E Court; and

(b) the person—

(i) who may appeal a matter (the ***appellant***); and

(ii) who is a respondent in an appeal of the matter; and

(iii) who is a co-respondent in an appeal of the matter; and

(iv) who may elect to be a co-respondent in an appeal of the matter.

(2) An appellant may start an appeal within the appeal period.

(3) The ***appeal period*** is—

(a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or

(b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or

(c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or

(d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or

(e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or

(f) for an appeal relating to the *Plumbing and Drainage Act 2018*—

(i) for an appeal against an enforcement notice given because of a belief mentioned in the *Plumbing and Drainage Act 2018*, section 143(2)(a)(i), (b) or (c)—5 business days after the day the notice is given; or

(ii) for an appeal against a decision of a local government or an inspector to give an action notice under the *Plumbing and Drainage Act 2018*—5 business days after the notice is given; or

(iii) for an appeal against a failure to make a decision about an application or other matter under the *Plumbing and Drainage Act 2018*—at anytime after the period within which the application or matter was required to be decided ends; or

(iv) otherwise—20 business days after the day the notice is given; or

(g) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

Note—

See the P&E Court Act for the court's power to extend the appeal period.

(4) Each respondent and co-respondent for an appeal may be heard in the appeal.

(5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.

(6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—

(a) the adopted charge itself; or

(b) for a decision about an offset or refund—

(i) the establishment cost of trunk infrastructure identified in a LGIP; or

(ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

(1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—

(a) is in the approved form; and

(b) succinctly states the grounds of the appeal.

(2) The notice of appeal must be accompanied by the required fee.

(3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—

(a) the respondent for the appeal; and

(b) each co-respondent for the appeal; and

(c) for an appeal about a development application under schedule 1, section 1, table 1, item 1—each principal submitter for the application whose submission has not been withdrawn; and

(d) for an appeal about a change application under schedule 1, section 1, table 1, item 2—each principal submitter for the application whose submission has not been withdrawn; and

(e) each person who may elect to be a co-respondent for the appeal other than an eligible submitter for a development application or change application the subject of the appeal; and

(f) for an appeal to the P&E Court—the chief executive; and

(g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.

(4) The ***service period*** is—

(a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or

(b) otherwise—10 business days after the appeal is started.

(5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).

(6) A person elects to be a co-respondent to an appeal by filing a notice of election in the approved form—

(a) if a copy of the notice of appeal is given to the person—within 10 business days after the copy is given to the person; or

(b) otherwise—within 15 business days after the notice of appeal is lodged with the registrar of the tribunal or the P&E Court.

(7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department's website for this purpose.

231 Non-appealable decisions and matters

(1) Subject to this chapter, section 316(2), schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.

(2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.

(3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.

(4) In this section—

decision includes—

(a) conduct engaged in for the purpose of making a decision; and

(b) other conduct that relates to the making of a decision; and

(c) the making of a decision or the failure to make a decision; and

(d) a purported decision; and

(e) a deemed refusal.

non-appealable, for a decision or matter, means the decision or matter—

(a) is final and conclusive; and

(b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and

(c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

232 Rules of the P&E Court

(1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.

(2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.

ATTACHMENT 5

Infrastructure Charges Notice

In accordance with the Infrastructure Charges Resolution (No. 10) dated 5 October 2022 or as amended, there is no Infrastructure Charges applicable to the development.